Harmony Flats Nature Reserve

Harmony Flats Nature Reserve, on the Cape Flats between Strand and Gordon's Bay, is one of the City of Cape Town's 24 nature reserves. The nearly 220 different plant species found in this small 9 hectare nature reserve belong to a **vegetation type** called Lourensford alluvium fynbos. Like many other plant species in Cape Town, Lourensford alluvium fynbos is **critically endangered**. In spring, the pretty **indigenous** flowering plants, such as daisies, orchids, bulbs and blouoog-kalossies (scientists call them *Ixia versicolor*), turn Harmony Flats into a treasure chest of colour. But treasures need special protection. That is why we must do everything we can to protect these plants. If we let them disappear – and many of them are on the brink of it – they will be gone forever.

That is why the communities living around Harmony Flats Nature Reserve must become involved – after all, the reserve and the treasures it contains belong to each and every one of us. We must all protect it, and may all enjoy it. Joining conservation efforts offers you an unique opportunity to help protect a community treasure, while also getting the chance to enjoy nature.

The wonders of wetlands

- Harmony Flats is a seasonal wetland. This means that it is wet during the rainy season, and dry during summer.
- Wetlands are important for many reasons: They help prevent flooding, control the water running from the city's drain systems, and remove pollutants from river water.
- Wetlands are home to many of Cape Town's birds, amphibians, mammals and reptiles – most of them indigenous.
- As the city has become bigger and bigger, unfortunately most seasonal wetlands in Cape Town have been changed into permanent vleis. These vleis are popular areas for fishing, boating and other water sports.
- Many indigenous species that live and breed in seasonal wetlands however cannot survive in permanent vleis. These species need the specific conditions that only wetlands offer; if these conditions change, **invasive alien species** often take over and cause the indigenous species to disappear.
- Wetlands are also very vulnerable to pollution and eutrophication. Eutrophication is when there are too many nutrients in the water, which leaves too little oxygen for fish and plant life to survive. This could also make the water unsafe for people to use. Eutrophication is for example caused by water running from farming areas, as this water often contains the nutrient-rich fertilisers that farmers use.

The critically endangered blouoog-kalossie, *Ixia versicolor*.

Why are nature reserves and other natural open spaces important?

- Previous generations have left us many unique natural and cultural treasures – nature reserves help us conserve that heritage.
- Cape Town's natural beauty and unique **biodiversity** attract many tourists that come here to experience the city's natural areas.
- Urban open spaces are places where we can learn about nature, and just relax.
- The natural areas in and around the city become part of the life and identity of the people of Cape Town; they are part of what we call 'home'.
- Green urban areas are very important for our health and well-being. Plants, **wetlands** and soil naturally filter out certain **pollutants** to make the city cleaner and healthier. Such services provided by natural systems are called **ecosystem** services.
- The benefits of well-managed public open spaces are not limited to the spaces themselves. Nearby houses and other property are in demand; local communities live in greater harmony; and crime is reduced in the surrounding areas.
- Plants can store carbon. Carbon is one part of carbon dioxide, the gas that comes from vehicle exhausts, factories, heating and cooling of our homes, and even our own breathing. This gas is a major cause of **global warming** and **climate change**. However, by absorbing carbon, plants and trees reduce the amounts of carbon dioxide that go into the atmosphere, and can therefore help prevent global warming.

George Branch

Learn the lingo

- **biodiversity** – the variety of different forms of life, like humans, plants and animals, and the way they live together, plus all natural systems through which they survive
- **climate change** – the disruption of weather patterns due to global warming
- **corridors** – special strips of land
- **critically endangered** – animals or plants that need urgent conservation and protection to prevent them from disappearing forever
- **ecosystem** – all forms of life and the environment, working together as systems in nature
- **global warming** – worldwide rise in the earth's temperature due to gas build-up
- **heritage** – cultural, natural and other treasures passed on by previous generations
- **indigenous** – animals and plants that naturally belong in an area
- **invasive alien species** – plants and animal types that do not naturally belong in an area, but take over the living space of indigenous species
- **pollutants** – harmful substances that make air, water and soil impure
- **vegetation type** – a grouping of plants of similar structure that grow together as they prefer the same type of environment
- **wetlands** – areas controlled and shaped by water

The Biodiversity Network

The Biodiversity Network is the conservation plan for the Cape Town area. As the local government for the area, one of the City of Cape Town's responsibilities is to protect the biodiversity found here. The Biodiversity Network tells us how many natural areas we have left which we must protect as our contribution to the country's conservation targets. Besides the City of Cape Town's 24 nature reserves, the Network also includes other areas with important biodiversity, as well as **corridors** that link the biodiversity sites. These corridors form passages along which plant and animal types can spread so that they are not found in one spot only, but over as wide an area as possible. The Biodiversity Network also tells planners and builders which areas with special plants and animals they must avoid when they further expand and build the city.

Cape Town nature reserves

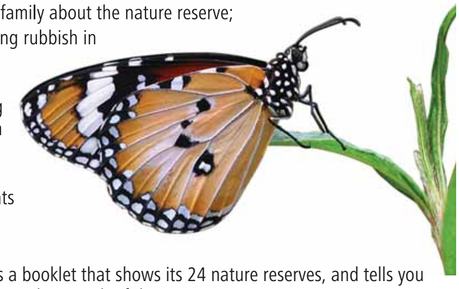
- Blaauwberg Conservation Area
- Mamre Nature Garden
- Atlantis Dunefields & Silwerstroom Conservation Areas
- Rietvlei Wetland Reserve
- Zoarvlei Wetlands
- Raapenberg Bird Sanctuary
- Rondebosch Common
- Kenilworth Racecourse Conservation Area
- Rondevlei Nature Reserve
- Zeekoevlei Nature Reserve
- Zandvlei Estuary Nature Reserve
- Edith Stephens Wetland Park
- Wolfgat Nature Reserve
- Macassar Dunes Conservation Area
- Tygerberg Nature Reserve
- Durbanville Nature Reserve
- Uitkamp Wetlands
- Bracken Nature Reserve
- Helderberg Nature Reserve
- Silwerboomkloof Nature Reserve
- Lourens River Protected Natural Environments
- Dick Dent Bird Sanctuary
- Harmony Flats Nature Reserve
- Kogelberg Nature Reserve

On this map, you can see where and how Harmony Flats Nature Reserve fits in with the other City of Cape Town reserves.

The future of Harmony Flats

The conservation team at Harmony Flats wants to make the reserve as beautiful as it once was so that everyone can enjoy it. This work has already started, and with a little help from you and your friends, we can turn Harmony Flats into your new favourite place. Help us by:

- learning about the reserve, and visiting it for fun and to relax;
- telling your friends and family about the nature reserve;
- never littering or dumping rubbish in the reserve;
- never starting a fire in the reserve, and reporting fires to the conservation team or the Fire Department; and
- joining the Harmony Flats Working Group.



The City of Cape Town has a booklet that shows its 24 nature reserves, and tells you everything you need to know about each of them.

For more information, or to download this booklet, go to www.capetown.gov.za/environment.

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Harmony Flats Nature Reserve — Corridors

Birds of Harmony Flats

Even though Harmony Flats is a small reserve, and is surrounded by many people and houses, some fascinating birds still choose to live here. This makes every bird you see here even more special, and makes it even more important that you help protect the environment. If you find bird-nests or young birds that seem abandoned, please leave them alone and walk away quickly. The mother is probably hiding nearby, keeping a close look on her young ones, and if you disturb them, she may abandon them completely.

If you want to learn more about the birds of Harmony Flats and other areas, there are many bird clubs and groups you can join. They do bird counts, go on outings, and arrange other exciting activities. It is important to know what birds, and how many of them, can be found in Harmony Flats – we use the information to make sure that the nature reserve stays healthy.

Some of the beautiful birds that can be found in Harmony Flats:

Karoo prinia, Karoolangstertjie, *Prinia maculosa*
This bird is **endemic** to South Africa and the southern part of Namibia. It uses grass to build its oval-shaped nest in shrubs or bushes. It gets up to 15 cm in length, has short rounded wings, and a short black bill. The head is brown with a white eyebrow, and the lower parts of the face and throat are white with dark stripes. It is yellowish white or yellow, with black stripes below. The Karoo prinia is one of the most common bush birds in the Western Cape.

Clapper lark, Kaapse klappertjie, *Mirafra apiata*
This bird is only found in Southern Africa. It feeds on the ground, and eats seeds and many different kinds of insects. The clapper lark builds its nest on the ground with fine grass and roots. It places the nest under a bush to protect the young from **predators**, and lays 2–5 green-coloured eggs. Its head is chestnut, and the bill is brown. It has pink legs, brown eyes, and a brown back.

John Graham

Orange-throated longclaw, oranjekeelkalkoentjie, *Macronyx capensis*
The orange-throated longclaw is **endemic** to Southern Africa. This bird looks for food on the ground, and mainly eats insects. The orange-throated longclaw builds its nest under bushes for protection, and lays 1–4 cream-coloured eggs at a time. This bird has an olive-coloured head and a black bill, and gets its name from its orange throat. Its eyes and legs are brown, and the back is grey/brown.

Zitting cisticola, landeryklopkloppie, *Cisticola juncidis*
The zitting cisticola can be found in many parts of the world. It is a small bird, only 10 cm long, which feeds mainly on small insects. It ties leaves together with spider webs and grass to make a cup-shaped nest deep in the grass, where it lays 3–6 eggs. It also uses tied-together leaves and grasses to cover the nest. The zitting cisticola gets its name from its call, which sounds like 'zit-zit-zit-zit'. This bird is brown, with black streaks on top, and a whitish colour below, and has a broad, white-tipped and flicking tail.

Pied crow, witborskraai, *Corvus albus*
The pied crow is found throughout **sub-Saharan Africa**, and is common in the Western Cape. It is an **omnivore**, and therefore feeds on insects, small reptiles, small mammals, young birds and eggs, grain, fruit and any scraps of food. In city areas, this bird usually lives near humans, and is often confused with house crows, which are an **invasive alien species**. Pied crows are found in parks, empty buildings, and gardens. The pied crow lays 1–7 green-coloured eggs, and is **monogamous**. It is about 50 cm long, and is black in colour, except for a large white area starting from the shoulders, and covering the breast.

The house crow – an invasive alien

The house crow (*Corvus splendens*) is an invasive alien species, and is a threat to other species and their habitats. This bird travels on ships, spreading all over the world. It first appeared in Africa in the late 1800s, and in Cape Town in the 1980s. The house crow is aggressive, and eats almost everything: insects, bird's eggs, food scraps, seeds, etc. The house crow is a danger to our health, as it often carries diseases such as salmonella, cholera, entamoeba, dysentery and typhoid. Its wings and tail as well as its forehead, crown, throat and upper breast are all glossy black. Its neck and lower breast are light grey-brown. The main difference between the house crow and the larger pied crow is the pied crow's large white area from its shoulders to the lower breast.

Black-headed heron, swartkopreier, *Ardea melonacephala*
Unlike most other herons, the black-headed heron does not prefer wetlands. It likes open grasslands, farmlands and forest areas, and is found throughout sub-Saharan Africa. It will eat almost any animal it can catch and swallow, like insects, rodents, birds, frogs and reptiles. The black-headed heron builds its nest in trees, on cliffs or in reed patches for protection. It is about 90 cm long, and its head, throat, bill and legs are black. It has yellow eyes, and a brown back.

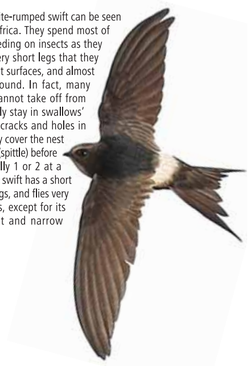
Cattle egret, veereier, *Bubuculus ibis*
The cattle egret is found in wetlands, **riverine** forests and moist grasslands in Africa and parts of Asia and Australia. It rests around vleis, but can be found feeding in farmlands, grasslands and open **savannas** during the day. The cattle egret builds its nest high up in trees, where it lays 2–6 blue-green eggs. It has a white head, back and throat, black legs, red eyes, and a yellow bill, which turns orange-red when it is breeding.

Trevor Hardaker

Blacksmith lapwing, bontkiewiet, *Vanellus armatus*
The blacksmith lapwing is found throughout Southern and Eastern Africa. They prefer muddy or grassy wetlands – even small pools and puddles – and can get very aggressive if other birds from the same species try to share their **habitat**. They feed on insects, worms and other small **invertebrates** that live in water and on land. The blacksmith lapwing has clear patterns in black, grey and white, and red eyes. It gets its name from its call, which sounds like the strike of a blacksmith's hammer.

Crowned plover, kroonkiewiet, *Vanellus coronatus*
This bird is found in Eastern and Southern Africa. It prefers short and dry grasslands, and feeds on insects that live in such areas. It also likes open spaces and large lawns. The crowned plover is noisy, and can be aggressive towards other plovers when building its nests. It is brown, with white below, and gets its name from its black crown with a white halo on it.

White-rumped swift, witkruiswindswael, *Apus caffer*
During summer, the white-rumped swift can be seen throughout Southern Africa. They spend most of their lives in the air, feeding on insects as they fly. These birds have very short legs that they use to cling onto upright surfaces, and almost never settle on the ground. In fact, many white-rumped swifts cannot take off from the ground. They usually stay in swallows' nests, but also nest in cracks and holes in buildings and cliffs. They cover the nest with feathers and saliva (spittle) before laying their eggs, usually 1 or 2 at a time. The white-rumped swift has a short forked tail and long wings, and flies very fast. It has dark colours, except for its lighter-coloured throat and narrow white rump.



Learn the lingo

- **endemic** – found nowhere else in the world
- **habitat** – space where plants and animals live and breed
- **invasive alien species** – plants and animal types that do not naturally belong in an area, but take over the living space of species that do naturally belong there
- **invertebrates** – animals with no backbone
- **monogamous** – animals finding and breeding with one partner only, either for their whole lives, or for the breeding season
- **omnivore** – a living creature that eats both plants and meat
- **predators** – wild animals living by killing and eating other animals
- **riverine** – next to or in relation to a river
- **savannas** – open flat stretches of grassy land found in warm parts of the world
- **sub-Saharan Africa** – African countries south of the Sahara Desert

For more information, go to www.capetown.gov.za/environment.

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Creatures of Harmony Flats

Mole snake, molslang, *Pseudapsis cana*
This snake is common to Southern Africa. Like all other indigenous reptiles in the region, the mole snake is listed as a protected species under the **Western Cape Nature Conservation Act**. Mole snakes are very shy and not **venomous**. They prefer burrowing and looking for food underground. They eat rats, moles and lizards, as well as small birds and their eggs. Most adult mole snakes are black, but the young ones can vary in colour. Mole snakes often get killed by cars on the road – this usually happens during their breeding season in spring, when they appear above ground more often.

Maria Muehle

Spotted skaapsteker, gevlekte skaapsteker, *Psammophylax rhombeatus*
This harmless snake is common in the Western Cape, and is often found in moist areas. It is not really dangerous, because its venom is quite weak. Even though the snake is often found in sheep kraals, its venom cannot kill sheep. It eats lizards, frogs and small **rodents**. It has rows of dark brown spots on the olive-brown background of its head and body. Its belly is bluish-grey, and some even have orange or red spots on the sides of the belly and neck.

The rich plant life in Harmony Flats Nature Reserve attracts many different reptiles and insects. Some of them may be very small and even difficult to spot, but they are still important for the **biodiversity** of the reserve. Every living creature in the reserve is part of the **ecosystem** and together they keep Harmony Flats healthy. Healthy, **indigenous** plants and animals also help the reserve survive drought, wind and fire.

What to do with snakes?

When you see a snake in the veld, leave it alone. Most snakes are harmless to people, and the few that are venomous will only bite if they feel threatened. Most people that get bitten by snakes have frightened, disturbed or even tried to kill the snake. In that case the snake will fight back. Snakes eat many rats, mice and other pests, and are therefore good to have around gardens and residential areas.

Common slugeater, tabakrolletjie/gewone slakvreter, *Duberiia lutrix*
This snake is harmless. They have no venom, and they do not bite – not even when they feel threatened. As its name shows, it eats slugs and snails, which makes it a garden's best friend. These snakes prefer to stay in damp areas where slugs and snails are found. The common slugeater is a small brown snake with grey sides. A thin black line separates the sides and back, while another black line separates the sides and the white edges of the belly. The middle of the belly is usually a yellowish-brown colour. Its Afrikaans name, 'tabakrolletjie' (tobacco roll), comes from the slugeater's habit of rolling up tightly and hiding its head when it feels threatened.

Keep our animals safe

- Birds and reptiles become extinct when they lose their habitat.
- If Harmony Flats loses its butterflies, seeds, flowers or any other part of its biodiversity, many of the birds and reptiles will have no food or nesting material.
- Birds and reptiles also prefer to eat and breed in indigenous gardens and reserves. That is why it is so important to protect our indigenous flora and fauna.
- Frequent fires are a main threat to the animals living in Harmony Flats, and contribute to their extinction. Never start fires – and report any fire you see.
- Dogs are not allowed in the nature reserve, as they disturb the wildlife, and sometimes even destroy rare and endangered plant species.
- Littering and other pollution is another threat to the animals of Harmony Flats. Animals can injure themselves on sharp objects, like broken glass and scrap metal, and dangerous substances can harm and even kill plants and animals.

Learn the lingo

- **biodiversity** – the variety of different forms of life, like humans, plants and animals, and the way they live together, plus all natural systems through which they survive
- **caterpillars** – small, wormlike creature (the larva of the butterfly) that feeds on plant leaves
- **digest** – changed into a form that so the body can absorb the nutrients
- **ecosystem** – all forms of life and the environment, working together as systems in nature
- **endemic** – found nowhere else in the world
- **extinct** – no longer existing
- **faeces** – solid waste passed from the body through the bowel
- **flora and fauna** – plant and animal life
- **fossil** – remains of an animal or plant of long ago that have been preserved in rock or ice
- **habitat** – space where plants and animals live and breed
- **indigenous** – plants and animals that naturally belong in an area
- **invasive alien vegetation** – plants and animal types that do not naturally belong in an area, but take over the living space of indigenous species
- **predators** – animals that live by killing and eating other animals
- **rodents** – small plant-eating animals with strong sharp teeth
- **scute** – a shield-like plate protecting a turtle/tortoise
- **venomous** – poisonous
- **Western Cape Nature Conservation Act** – law by which the government of the province manages nature conservation

Geometric tortoise, suurpootjieskilpad, *Psammbates geometricus*
The geometric tortoise prefers the Southwestern Cape's alluvium fynbos and renosterveld areas. They have a yellow head, neck and limbs, and the top of their scutes are raised like tents. Each scute also has a yellow star on a brown or black background. These sensitive animals need specific food and living conditions. They are seriously threatened by **invasive alien vegetation**, fires and changes to their **habitat**. Many years ago, the Harmony Flats area was home to a group of rare geometric tortoises. Unfortunately, the geometric tortoise is now **extinct** here, mostly because of people's interference and frequent fires.

Tortoise tales

South Africa, especially the Cape, has the most tortoise species in the world. Of the 40 tortoise species that exist, 12 are found in South Africa, and 6 of these are endemic to the Western Cape. This is because of the various habitats that are found here.

Tortoises have been around since the time of dinosaurs. **Fossil** records show that tortoises have not changed much in the past 200 million years!

All South African tortoise species are protected by law. This means that you cannot collect, keep, sell or remove any tortoises from their habitat, and that they must be left alone. If you find a tortoise in danger, please contact your nearest nature conservation office.

Tortoises have no teeth, but they use their sharp-edged, horny beaks to tear and chew food. They mostly eat plants, but sometimes also nibble on bones, snails, insects and **faeces**. Tortoise droppings often have seeds in them, as tortoises do not completely **digest** their food. This helps to spread seeds and create new plant life.

The tortoise's shell is made out of keratin, the same material as your finger nails. This means that tortoises can feel your touch on their shell, and therefore it is better to leave them alone.

Padlopers

Padloper tortoises are endemic to Southern Africa. The four types of padlopers found in the Western Cape are the smallest tortoises around; they never really grow longer than 15 cm. They have flat shells, and their scutes do not have knobs. The parrot-beaked tortoise of Harmony Flats belongs to this species. The other three padlopers are the Karoo padloper, the Greater padloper and the Southern speckled padloper.

If padlopers accidentally end up on their backside, they can quickly turn themselves over again because of their strong legs and light weight. Other tortoises usually cannot do this, and could even die if they are left lying in the sun and heat.

Parrot-beaked tortoise, gewone padlopertjie, *Homopus areolatus*
This tortoise is **endemic** to South Africa, and eats grasses, herbs and shrubs. They are good climbers, and easily walk up steep slopes. The parrot-beaked tortoise is small in size, usually no more than 10 cm long, with a hooked beak like a parrot's, four claws on each of the front and back feet, and an olive-coloured shell with reddish-brown centres to the **scute**. Parrot-beaked tortoises mate and lay their eggs (2–4 eggs each year) in spring and early summer, and the eggs hatch when the first winter rains fall. Fires, pet dogs and illegal collectors are big threats to these tortoises.

Painted lady, sondagsrokkie, *Vanessa cardui*
This is one of the most widespread butterflies in the world, and it is found on all continents except South America and Australasia. It occurs in all parts of South Africa, including most suburban gardens. Its wings are orange and brown on the upper side, with duller shades of brown and grey at the bottom. The front edge of the forewing is black, with a white bar and small white spots. When the painted lady is sitting down with its wings folded together, you can see four small eyespots on the back wing. These eyespots are there to scare predators away.

Common African monarch, melkbosskoenlapper, *Danaus chrysippus*
This butterfly species, which has been around for thousands of years, has a substance in its body that makes **predators** vomit when they eat it, and most predators therefore avoid it. This substance comes from the food plants that the **caterpillars** feed on. People say that is why the common African monarch is such a slow flyer – it does not have to fly away from predators. It has a wingspan of 7–8 cm. The body is black with white spots, and the wings are yellowish-brown, with a white band on the black tips. From December to late May, these butterflies can be seen everywhere in the Cape Peninsula, but can also be found at other times.

Silver-bottom brown, silwerbruin, *Pseudonympha magus*
This butterfly is endemic to Southern Africa. It likes open grassy spaces and damp areas, and the Cape Flats is one of its favourite spots. It has a wingspan of 4–4,5 cm, and a pale silver-grey back wing that looks silvery white when it flies. It flies slowly over grassy patches, and settles on flowers or on the ground to feed. It can be seen throughout the summer months.

For more information, go to www.capetown.gov.za/environment.

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The Harmony Flats garden

Cape Town and its nature reserves form part of the Cape Floristic Region. This region has more plant species than anywhere else in the world – in fact, 70% of the plants found here are **endemic**. Because of its importance, the region was named a natural **World Heritage Site** in June 2004. It is divided into five plant groups – fynbos, strandveld, wetlands, renosterveld and forest – each with its own **vegetation types**.

In Harmony Flats Nature Reserve, we are proud to preserve the **critically endangered** Lourensford alluvium fynbos. 'Fynbos' (fine bush in Afrikaans) refers to this plant group's small, fine leaves. These leaves are especially designed to store water for the hot and dry Cape summer so that the fynbos can survive the season.

So remember, Harmony Flats Nature Reserve is not just any reserve – it is home to some unique species, which rely on us for protection and survival.

(above left) **Peacock morea, blouflappie/uiltjie, *Moraea villosa***
The dark blue markings on this flower's petals attract **pollinators**, as they look like the insects that pollinate this bulb. This plant is close to being classified 'threatened', and must therefore be looked after carefully. It flowers between August and September.

(right) ***Disa tenella***
This orchid is endemic to South Africa and the Western Cape. A group of more than 100 orchids were given the name 'disa' after a young woman in a Swedish story. The woman was dressed in a fishnet, and the net-like lines on these flowers must have reminded someone of her.

The life cycle of plants

Harmony Flats and its plant life cycle fits into a large system with many parts that all work together so that the plants and animals in the reserve can grow. We are also part of that system, because our actions determine what happens in the nature reserve.

- Plants need a number of things to grow and **reproduce**. To grow, a plant needs soil, nutrients, air, sunlight, water and the right temperature.
- Pollination is when pollen from another plant fertilises/prepares a flower to start reproducing (some plants can however pollinate themselves). Without pollination, a seed cannot be produced, and a new plant cannot grow.
- Pollen moves between flowers in three different ways. It can firstly move by air, where the pollen uses the wind to travel from one plant to another. Secondly, water plants spread their pollen through water. The third way is by pollinators, such as bees, wasps and birds, that carry pollen from the **polleniser** to the plant.
- When plants die, they **decompose**. This happens for two reasons: Firstly, the decomposed parts are used for new plants to grow; and secondly, decomposition creates space for new plants.
- Plants need other species and the surrounding environment to grow and reproduce. If for example water becomes polluted, or a certain bird species becomes extinct, this could also disrupt plant reproduction processes.

Langsteelvygie, *Lampranthus filicaulis*
This plant is classified as 'vulnerable', which means that it could become extinct if not conserved properly. It has **succulent** leaves and the flowers are pink or violet.

George Branch

Chincherinchee, tjienkerientjee, *Ornithogalum thyrsoides*
This is a common flower in Harmony Flats. It is white, with a dark centre, and can grow up to 80 cm high. The name 'chincherinchee' refers to the sound the flower stems make when they are rubbed together by the wind.

Restio, *Elegia verreauxii*
This grasslike plant is endemic to South Africa. It has 32 species, and belongs to the Lourensford alluvium fynbos family. The restio is classified as 'vulnerable', and therefore needs to be urgently protected.

A wonderland of flowers

The most charming of the many assets in Harmony Flats is perhaps its **flora**. Around 220 different plant species are found here – many of them endangered. Together with the other forms of life and the natural systems in the reserve, these plants form the **ecosystem** at Harmony Flats. Every flower, grass, insect, bird or reptile has its special place in the nature reserve.

Blouoog-kalossie, *Ixia versicolor*
This plant species is critically endangered – Harmony Flats is the only place left with a large number of this species. 'Versicolor' means 'of different colours', and refers to the variety of colours the plant's flowers can have: It can be purple to white, and has a darker centre. The blouoog-kalossie flowers in September and October.

George Branch

Scholly/thistle sugarbush, witskollie, *Protea scolymocephala*
This small protea likes sandy flats and coastal lowlands. It is a small upright shrub, standing 0,5–1,5 m tall, and has pink-dashed, creamy-green flowers. This plant is seriously threatened by development and **invasive alien vegetation**.

Robert Koopman

Shale conebush, grofblaartolbos, *Leucadendron lanigerum*
This plant is endemic to South Africa. It grows in **shale and granite soils**, and survives fire by resprouting from its underground roots. The males and females of this flower are separate plants, and the female's seeds are protected by cones. It flowers from July until October.

Sundew, doublom, *Drosera cistiflora*
This flower is endemic to South Africa. It is **dormant** in summer, grows in winter, and likes moist areas. This plant family is **carnivorous/insectivorous**. It catches insects with the sticky spots on its leaves, and then absorbs the nutrients it needs.

Babiana, vleibobbejaantjie, *Babiana angustifolia*
This flower found in the Western Cape grows in winter. It has hairy leaves and strong purple flowers. It is called 'vleibobbejaantjie' because baboons like to eat its bulbs.

Spider orchid, *Bartholina burmanniana*
This flower gets its name from the fine feather-like petals that surround it, looking like the legs of a spider. It has **aerial roots**, and flowers between August and October.

Plampers, heuningbossie, *Corymbium africanum*
This plant flowers in November and December. It has very rough leaves to protect it against **herbivores**. The leaves can also store water for the dry summer months. Plampers have white or pink flowers.

Malgas lily, malgaslelie, *Ammocharis longifolia*
These flowers have long, strap-like leaves, which can only be seen during spring and winter. They are very common to the Malgas area near the Breede River in the Cape, which explains their name. The flower is ivory to deep pink in colour, and has a pleasant sweet scent.

What is Lourensford alluvium fynbos?

Lourensford alluvium fynbos is a type of lowlands fynbos. Other types of lowlands fynbos are Cape Flats sand fynbos, Atlantis sand fynbos, Swartland alluvium fynbos and Hangklip sand fynbos. Lowlands fynbos has been hit hard by the building and development in and around the city; here, more species of lowlands fynbos are threatened with **extinction** than anywhere else in the world.

The most common types of plants in Lourensford alluvium fynbos are restios and asteraceaous shrubs. This type of fynbos also includes some **geophytes**. It makes a colourful and unusual garden, but unfortunately most of it has already been lost. Harmony Flats is one of a few sites where it is still found. Other sites are the lower slopes of Helderberg Nature Reserve, as well as Vergelegen Wine Estate.

Learn the lingo

- **aerial roots** – plant roots above the ground that absorb water from the air
- **carnivorous/insectivorous** – plants that eat meat in the form of insects
- **critically endangered** – plants and animals that need urgent conservation and protection to prevent them from disappearing forever
- **decompose** – the breaking down of a living organism into a format that can be recycled
- **dormant** – asleep or non-active
- **ecosystem** – all forms of life and the environment, working together as systems in nature
- **endemic** – found nowhere else in the world
- **extinction** – state of no longer existing
- **flora** – plant life
- **geophytes** – plants with underground bulbs
- **herbivores** – animals that eat plants
- **invasive alien vegetation** – plant types that do not naturally belong in an area, but take over the living space of plants that do naturally belong there
- **polleniser** – a plant that provides pollen
- **pollinators** – insects and birds that carry pollen between plants
- **reproduce** – multiply, give rise to offspring or young ones
- **shale and granite soil** – soil containing certain minerals and salts, such as bitumen, feldspar, quartz and mica
- **succulent** – able to store water during dry periods
- **vegetation type** – a grouping of plants of similar structure that grow together as they prefer the same type of environment
- **World Heritage Site** – special place of interest that the United Nations has recognised and selected for protection

For more information, go to www.capetown.gov.za/environment.

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Harmony Flats: Everyone's treasure, everyone's responsibility

We need to work together to protect Harmony Flats so that we, as well as future generations, can enjoy this treasure. Only by learning more about the reserve, and taking responsibility for its protection, can we preserve the unique **biodiversity** found here.

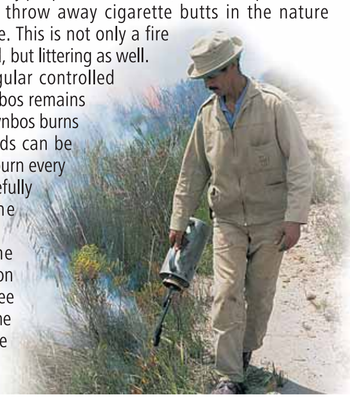
The greatest problem facing Harmony Flats is the loss of its **endangered** species. Some species have already been lost forever, and further losses can only be avoided if we all act responsibly. But to act responsibly, we need to know what challenges we are up against. These are some of them:

Unplanned or uncontrolled fires

Fires and fire hazards are the biggest challenge facing the nature reserve. Most fires in the reserve are caused by people's carelessness, but can be prevented. Never throw away cigarette butts in the nature reserve. This is not only a fire hazard, but littering as well.

Regular controlled fires are needed to make sure that fynbos remains healthy and rich in seeds. However, if fynbos burns too often, plants that grow from seeds can be wiped out. Most fynbos types need to burn every 8 to 25 years. These fire cycles are carefully managed and controlled by the conservation team.

Be responsible, and support the Harmony Flats community fire prevention and fire-fighting programme. If you see a fire or someone causing it, please phone the conservation team or the Fire Department immediately.



The cycle of fire

Fires occur naturally to renew the **flora** – if we have no fires at all, many of the plants will die, and reproduction will stop. Biodiversity will decrease, and the vegetation will become too weak to survive. These natural fires should however not happen too often. Too frequent fires destroy the **habitats** and the plants inside the nature reserve. Fire is also dangerous for the surrounding communities. Controlled fires must never take place in winter or spring, when they could destroy new bulbs and seedlings, and disturb and even kill nesting birds. The conservation team are the only ones who should ever carry out fire management.

Blouoog-kalossie, *Ixia versicolor*.

Invasive alien plants

Invasive alien plants compete with **indigenous** vegetation over land and water, and often take over the habitat so that the entire **ecosystem** eventually changes. When this happens, many indigenous plants and animals can no longer live there, and they disappear from the area. This is one of the major threats to biodiversity in Cape Town and worldwide. The fynbos in Harmony Flats is threatened by Port Jackson (*Acacia saligna*), Patterson's curse (*Echium plantagineum*) and kikuyu grass (*Pennisetum clandestinum*), which were originally brought to the Western Cape for timber, bark products, pastures and to protect sand dunes against the wind. Because they sometimes look pretty, some people have also planted other alien plants in their home gardens.

Be responsible, and join other community members in the Harmony Flats alien **eradication** programme to remove these invasive alien plants from the reserve.

Kikuyu grass, *Pennisetum clandestinum*

Port Jackson, *Acacia saligna*

Illegal dumping

Illegal dumping or littering harms the nature reserve in many ways. Litter increases the possibility of fire, pollutes the natural environment, and could harm animals, plants and people. Be responsible, and remember to take your own litter with you when leaving the nature reserve.

Reduce, reuse, recycle

There are many things you can do to prevent littering, and help protect our green areas and reserves. Remember: A clean green environment also means a clean city. Think about everything you throw away. Some of those things you probably did not even need! You could also reuse certain things before throwing them away. Instead of always buying new plastic bags at the supermarket, get a strong bag made of fabric, and use it every time you go food-shopping. You could also reuse your plastic bags, and save some money. When you have to throw things away, try to recycle where you can. Empty cans, glass and metal can harm animals and humans if these items are not properly thrown away. Old batteries and empty cleaning liquid bottles can still contain **pollutants**, which could end up in our soil and water, and harm our environment. Be responsible, and make sure that all your waste is thrown away or recycled properly.

Save water

Cape Town has a water shortage. By saving water, you do not only care for the environment, but you also save money on your water bill. Be careful with the water you use. Dangerous chemicals and cleaning liquids could end up in our soil and water, and could harm animals, plants and even people. Alien plants use much more water than indigenous vegetation, as they are not used to the Cape's hot and dry weather. Indigenous plants are water-wise, and should therefore be our first choice when we plant our home gardens. If you want to plant some indigenous plants yourself, ask the conservation team for help, and do not remove any plants from the nature reserve.

People who misuse the area

Be responsible, and stay on the footpaths and picnic sites when you are inside the nature reserve. It is illegal to litter, dump waste, and remove plants and animals. Do not step on the plants, or bring bikes or any other vehicles into the reserve. Dogs are also not allowed, as they disturb the wildlife and destroy habitats.

Illegal plant harvesting

It is illegal to remove any plants from the nature reserve. Remember, many of the plants found here are endangered; by removing them, you contribute to their **extinction**. Every little plant counts. Leave plants to grow and flourish in peace.

George Branch

Learn the lingo

- **biodiversity** – the variety of different forms of life, like humans, plants and animals, and the way they live together, plus all natural systems through which they survive
- **ecosystem** – all forms of life and the environment, working together as systems in nature
- **endangered** – plants and animals that urgently need conservation and protection to prevent them from disappearing forever
- **eradication** – rooting up, complete removal
- **extinction** – state of no longer existing
- **flora** – plant life
- **habitats** – spaces where plants and animals live and breed
- **indigenous** – plants and animals that naturally belong in an area
- **invasive alien plants** – plant types that do not naturally belong in an area, but take over the living space of indigenous species
- **pollutants** – harmful substances that make air, water and soil impure

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The people of Harmony Flats Nature Reserve

The people living around Harmony Flats Nature Reserve are important for the reserve's future. Therefore, they are often invited to take part in many interesting and fun activities that focus on taking care of the reserve, and learning about the environment. If you would like to participate, ask the conservation and community team to tell you more. Harmony Flats Nature Reserve is a great place to meet new friends and learn new facts.

The Harmony Flats Working Group

The Harmony Flats Working Group (HFWG) started out as a group of volunteers from the nearby area Casablanca. They are the eyes and ears of Harmony Flats: They keep the reserve clean, pick up litter, remove **alien plants**, and make sure that people use the reserve responsibly. If there is a fire in the reserve, the HFWG will immediately phone the conservation team, and will even try to put out the fire. Children from the surrounding areas can also help by letting members of the HFWG know when they have spotted a fire.

The HFWG is now a proper **non-governmental organisation**, and hopes to get more members to help with all of their activities. Some of these activities include training and **skills development** so that people can get more jobs.

The HFWG is very important for the nature reserve. Many people have their eye on the reserve's land to build houses and sports grounds, but the HFWG is determined to protect it for the future. The people of the HFWG are proud to be part of Harmony Flats: To them, the reserve is a symbol of conservation in the new South Africa, where all people can learn and understand the importance of conservation and natural areas. Harmony Flats Nature Reserve is a treasure chest, and to find the treasures, you must go there and see for yourself.

The YES programme

Harmony Flats as well as the other City of Cape Town nature reserves take part in the Youth Environmental School (YES) programme. This programme of activities for learners and educators runs throughout the year. The YES activities in which Harmony Flats participates are:

- Wetlands Week (February)
- Biodiversity Week (May)
- World Environment Week (June)
- Arbor Week (September)
- Weedbuster Week (October)

Let learners take the lead

We know that you, the learners, are the ones who will enjoy and take care of Harmony Flats in the future. That is why you must share the responsibilities of the nature reserve, as well as use the reserve to discover the wonderful world around us. By joining any of the nature reserve's many exciting activities, you can learn and understand the importance of conserving the **ecosystem**, and protecting our natural assets. These activities build friendships and pride in your local environment.

Harmony Flats Nature Reserve supports many activities, like the YES programme, holiday programmes for learners, the Champions Forum, sports days, and a plant monitoring programme. The reserve has an alien plant eradication programme for community members; it gives basic training in community fire-fighting; it organises litter cleanups; and hosts community **public participation meetings**.

If you are interested in joining the HFWG or any of the reserve's activities, ask the conservation team to tell you more. They can also tell you about other environmental and conservation organisations.

Learn the lingo

- **alien plants** – plants that do not naturally occur in an area
- **ecosystem** – all forms of life and the environment, working together as systems in nature
- **non-governmental organisation** – organisation that is not aimed at making a profit for its owners, but rather uses any income to promote its cause
- **public participation meetings** – gatherings at which members of the public are invited to have their say
- **skills development** – courses to improve people's abilities and knowledge

Our partners

Harmony Flats Nature Reserve wants to thank its many partners, who make all of the reserve's conservation and social activities possible:

• City of Cape Town • CAPE • Botanical Society of South Africa • Harmony Flats Working Group (HFWG) • Cape Flats Nature (CFN) • Custodians of Rare and Endangered Wildflowers (CREW) • Cape Nature • African Conservation Experience • Southern African Butterfly Conservation Assessment (SABCA).

For more information, go to www.capetown.gov.za/environment.

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