

# NewsLetter



GROTTO BAY PRIVATE NATURE RESERVE



Beautiful one day — Perfect the next

## July 2021 Newsletter

### BLOCK BURN UPDATE:

We had a very successful Phase 1 of the block burn on the 12 and 13th April 2021. We tried wherever possible to be mindful of the wildlife and chased out whatever we could prior to burning.

Some residents were still upset about the block burn. Perhaps after reading the below, they will understand the importance of this.



## Fynbos: why fire is important for its survival

(an excerpt from an article by Sarah Hoek)

The 'Cape Floral Kingdom' is home to thousands of plants unique to South Africa, and while fynbos thrives after fire, ecologists feel there are vital lessons to be learnt from the flames. Ecologists have divided our planet into six distinct floral kingdoms, which are "areas of the world recognised by plant geographers for their distinctive plant life", according to Britannica. "The Cape Floristic Region, and the Cape Floral Kingdom" are both terms that cover more or less the same area. These areas include all of the fynbos, and other vegetation types such as Renosterveld (mostly destroyed now), Strandveld (narrow stretch along the coast), and small patches of Afro-montane Forest.

South Africa's Cape Floral Kingdom is the smallest but the most diverse: "There are approximately 9,600 plant species in the Cape Floral Kingdom, and about 70% of them are found nowhere else in the world," says van Wilgen. Most of this is fynbos, the hardy, shrubby plants with fine, small leaves, bulb plants and reeds that can be found from along the Cape's coasts to mountain tops. Ecologist Dr Jasper Slingsby explains that "fynbos and the Cape Floristic Region are the richest temperate flora in the world, making up roughly 3% of all known vascular plant species on the planet", and it is home to "thousands of plant species that are found nowhere else on Earth", adds van Wilgen, and the only floral region that is contained within a single country.

The thousands of fynbos plants are compressed into a tiny area, says Slingsby, that includes 13 protected hotspots in the Western and Eastern Cape, covering about 90,000km<sup>2</sup>. To put that in perspective, in an area that is less than 1% of the continent, there are more than 8,500 species of fynbos that make up about 20% of Africa's flora. And for South Africans, it's all right on our doorstep.

"It is entirely limited to South Africa, making it an incredible piece of natural heritage globally, but entirely our responsibility to protect. When people think of South Africa they often think of lions and elephants in a savanna setting, but that biodiversity is common across Africa. Fynbos is uniquely ours," says Slingsby.

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## Why is fire good for fynbos?

Fynbos plants, such as proteas, need fire to be able to release seeds and reproduce, explains van Wilgen. In mature fynbos plants, fires stimulate them to release their seeds which then germinate. For example, when a protea burns, its seeds are released all together from what is left of the flower heads and begin to germinate in cooler weather. The following spring after the fire, the seeds will germinate, mature and flower again three to four years later.

The timing needs to be just right: the parent plants need to be mature enough to produce seeds, but they can't go too long without fire. Fires must occur before they die of old age – protea seeds do not last long after the parents die, says van Wilgen. If these indigenous plants go too long without fire, they go into a stage of senescence, where they begin to die and seed reserves deplete. This occurs after about 30 years. That sweet spot for fynbos, right between maturity and death, is where fire sparks new growth. It is an integral part of the fynbos life cycle. Van Wilgen adds that senescent vegetation also burns easier and has a high fuel load that results in much more intense fires.

In a perfect world (one without humans, perhaps) fire is a wonderful thing. It clears out the old and brings in the new, making space for fresh growth. "Most fynbos species are fire-dependent, in that they require fire to complete their life cycle," says plant ecologist and biodiversity scientist at the University of Cape Town, Dr Jasper Slingsby. Slingsby notes that flammable vegetation is the result of fire being excluded from an area for too long. "Vegetation really needed to burn to promote fynbos species." Urban expansion has prevented the natural flow of fire from the lowlands up the mountain. Unfortunately, the area was also heavily infested with invasive alien species which both contribute to extreme fire conditions and inhibit indigenous species."




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## How can we take better care of fynbos?

There are three main things South Africans can do to protect fynbos and the Cape Floristic Region, according to van Wilgen.

- First, more nature reserves are needed to protect what is left of our dwindling fynbos.
- Second, invasive alien plants need be prevented from establishing, or cleared where they have established.
- Third, prescribed burning needs to be practiced so that fires can take place under safe conditions and at the correct intervals to ensure the survival of all fynbos species.

## Security

GBHOA has been investigating acquiring a drone to complement our security offering over the past 2 years. Drones are fairly new technology, and many people are unaware of their capabilities, their uses, the laws governing them in South Africa etc. Below we have added some information to help dispel some myths as well as provide some information on the elusive subject.



## Drones and the law

Drone laws and regulations in South Africa are closely modelled on existing aviation law, however, RPAS is separated into commercial and hobby operations. To avoid prosecution, these regulations must be adhered to, without exception.

### Definitions:

**"Remotely piloted aircraft" (RPAS)** means an unmanned aircraft which is piloted from a remote pilot station, excluding model aircraft and toy aircraft.

**"Toy aircraft"** means a product falling under the definition of aircraft which is designed or intended for use in play by children (or young men who think they are still children).

**"Model aircraft"** means a non-human-carrying aircraft capable of sustained flight in the atmosphere and used exclusively for air display, recreational use, sport or competitions.

### The Basic law:

Drones may not be flown 10 kilometres or closer to an airport without special permission from the SACAA. Drones weighing more than 7 kilograms may not be flown. Drones may not be flown within 50 meters of people or private property (without permission from the property owner).

You may not fly nearer than 50 metres from people, buildings and roads. You may not fly a drone higher than 120m (400 feet). 'Hobby' drones must be flown within line of sight. Drones may not be flown at night.

Can a drone fly over my home/property? The short answer is yes. The SACAA controls the air above your home, and property lines do not extend into the sky.

### Licensing to fly a drone:

Should you get a license? If you are flying a drone as a hobby (personal and private use) then a license is not required, however you still have to follow the South African Civil Aviation Authority's (SACAA) regulations on Remotely Piloted Aircraft System (RPAS). As a commercial pilot, a commercial drone pilot must also go through their own certification and exams. The first step would be getting your Remote Pilots License (RPL), second would be your Air Service License (ASL) from the department of transport and then your Remote Operators Certificate (ROC) from the SACAA.

# Types of Drones

One of the drones our security team is currently considering is the DJI Matrice 300. This drone can be programmed to patrol a set path, take off and land autonomously from its charging station. It's capable of 360 degree obstacle avoidance, can fly in light rain and heavy winds up to 38km/h and will be equipped with an optical camera as well as a thermal detection camera.

The drone can be connected to our current infrastructure, providing visuals to our guards and offsite monitoring AND be triggered to fly by our existing thermal camera system. Meaning if our perimeter camera detects an intruder, it can send the approximate co-ordinates to the drone, which can then take off and fly directly to the spot, then hovering above and following any would-be intruder.

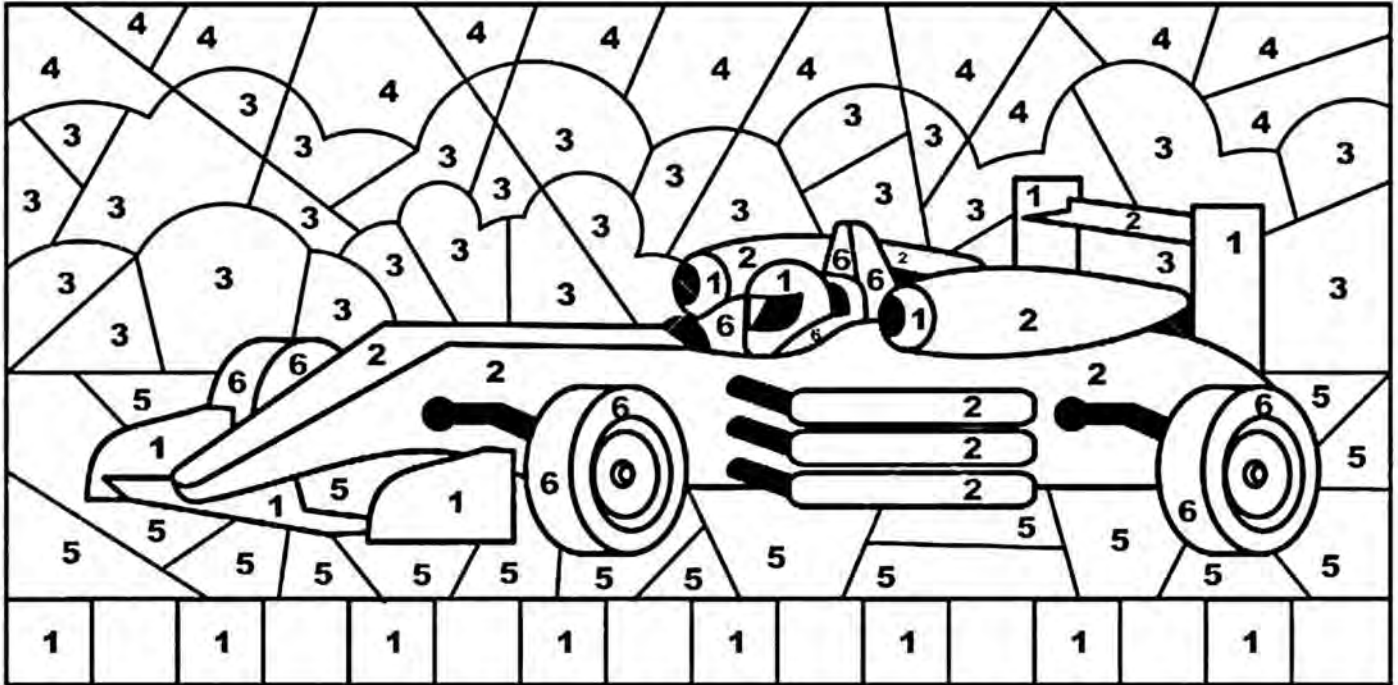
## Kid's Corner

Can you name all these fruits and put the answers in the right places?

**Fruits**

1. Grape 2. Strawberry 3. Watermelon  
 4. Pineapple 5. Lemon 6. Apple 7. Pear  
 8. Pomegranate 9. Orange 10. Banana

# Paint By Numbers



## Impressive Animal Facts

1. A polar bear's hair is not white – it's colourless. Each thick strand of hair is hollow and reflects the light, making the polar bear appear white. Beneath this transparent fur, the skin is black, to soak up any warmth from the sun and keep the bear as warm as possible.
2. A giraffe has seven bones in its neck, which is the same as a human has, but they are much larger.
3. The pattern of wrinkles on a gorilla's nose is unique to each one and is known as a 'nose print'. Conservation workers use photos and sketches of gorillas' noses to keep track of individuals.
4. There are no male or female earthworms. All earthworms have both male and female parts – but it still takes two of them to reproduce.
5. A vampire bat's teeth are so sharp that its bite may not be felt at all. Their saliva dulls any pain, so a bat may drink its victim's blood for up to 30 minutes.
6. Hippos' closest living relatives are the aquatic mammals: whales, dolphins and porpoises.
7. A chameleon's tongue is at least as long as its body, but it can grab prey in a fraction of a second.