



Quarterly Newsletter – December 2021, Volume 3

The Great Southern Bioblitz - 22nd – 25th October 2021

In a spirit of friendly rivalry and international cooperation, amateur nature lovers and life scientists in countries all over the Southern Hemisphere, including South America, Southern Africa, Australasia and Oceania, collaborated in documenting organisms, both animal and vegetable, to record and increase our knowledge of the state of biodiversity during early summer in the Southern Hemisphere. Using the online platform iNaturalist, participants used their cameras and cell phones to photograph hundreds of thousands of plants, fungi, insects, arachnids, birds, mammals and sea life – indeed every observable living thing throughout the Southern Hemisphere.

iNaturalist is a joint initiative of The California Academy of Sciences and The National Geographic Society, giving the platform a global reach. Facilitated and supported by iNaturalist, the Great Southern Bioblitz (GSB) was organised into participating regions defined by cities, towns, villages and discrete geographical areas. Many participants were already familiar with the iNaturalist platform, while many more, particularly nature loving amateurs, were not. A steep learning curve was the order of the day for many. Training sessions for newcomers were conducted in many regions while experts, both professional life scientists and experienced amateurs, helped with the identification of organisms photographed.



Overstrand Bioblitz advert.

Bioblitzes are not new. Worldwide 'City Nature Challenges, for example, have been held annually for some years. However, The Kogelberg Biosphere Reserve was represented in a Bioblitz for the first time by the Overstrand region, covering the area under the Overstrand Municipality in the South Western Cape and much of it in the Kogelberg Biosphere Reserve.



Being first timers, the Overstranders and Kogelberg Biosphere Reserve participants, had no idea how they would fare in friendly competition for the most observations and different species photographed with seasoned Bioblitzers in regions such as Cape Town and Tena in Ecuador, not to mention regions in Australia, New Zealand and Fiji. To the great delight of the participants, Overstrand came second after the winners, Cape Town.

176 Overstrand (and Kogelberg Biosphere Reserve) observers made 14333 observations of 2091 different species. Cape Town turned out the champion with 21735 observations of 2940 species made by 326 observers.

Positive spinoffs from the GSB and the skills acquired are the possibilities of developing iNaturalist projects in specific areas requiring focused investigation, such as particular areas of conservation concern, defined habitats, ecological zones, specific organisms requiring closer study and so forth. Databases can be developed in local areas to assist in planning conservation initiatives and educating local people regarding the special features of their environments.

Already participants in the 2021 Great Southern Bioblitz are gearing up for the 2022 version and encouraging more nature lovers to join the fun.



Observations collected in Bettys Bay during the Bioblitz.

Fynbos Biodiversity Garden - Environmental Awareness Campaign in Grabouw

On the 16th and 17th of September 2021 Youth for the Environment (Y4Enviro) together with the Pineview Primary Eco Club members, got their hands dirty. The members of the school's Eco Club enthusiastically participated in planting the school's first Fynbos Biodiversity Garden on the school grounds and did a spectacular job. The indigenous plant species included Vygies (*Lampranthus amoenus*), Cape honeysuckle (*Tecomaria capensis*), Common sunshine conebush (*Leucadendron salignum*), Burgandy sunset (*Leucadendron laureolum hybrid*), Restios, Cape sweet pea (*Dipogon lignosus*) and more.

This project formed part of the Environmental education and awareness programme currently running in the Grabouw area. The aim was to teach students about the importance of planting indigenous plants to create a thriving and healthy ecosystem. Students learnt how indigenous plants differ from alien invasive plants and how this can affect animal populations and ecosystem health. This Biodiversity Garden will attract many pollinating species such as birds and insects and may also become a habitat for rodents and other ground-dwelling creatures. The learners are now proud owners of their own little ecosystem and are committed to maintaining and observing the health thereof going forward.



Eco club members planting indigenous species (Photo Lanah Murray).



Y4Enviro staff and Eco club members erecting signboard at garden (Photo Lanah Murray).

On the 29th of November 2021, the Eco Club members joined Y4Enviro staff in erecting a signboard for the Biodiversity Garden. The sign serves as the school's personal landmark and is a way for the learners to take ownership of their newly created green space. It also signifies the relationship formed between Y4Enviro and Pineview Primary School and is only the beginning of a very fruitful journey ahead combining learners, teachers, and community members of the Grabouw community. This project is the first of many to come and it is safe to say that it has been an extremely valuable and enriching experience for everyone involved.

Climate Change Facts & COP26

Analysis by NOAA shows that average global temperatures in 2020 were 0.98 degrees C warmer than the 20th century average — making it the second-hottest year on record. In fact, the seven warmest years in the 1880 - 2020 record have all occurred since 2014. Eleven percent of all global greenhouse gas emissions caused by humans are due to deforestation — comparable to the emissions from all of the passenger vehicles on the planet.

Tropical rain forests are incredibly effective at storing carbon, providing at least a third of the mitigation action needed to prevent the worst climate change scenarios, but nature-based solutions receive only 3% of all climate funding. Natural climate solutions such as restoring degraded forests could create as many as 39 jobs per million dollars spent — that's a job-creation rate more than six times higher than the oil and gas industry.



Tropical rain forests.

To conserve ecosystems is often more cost-effective than human-made interventions. In the Maldives, preserving the natural coral reef is four times cheaper than building a sea wall for coastal protection, even after 10 years of maintenance costs.

During the Glasgow climate change summit (COP26) all 197 participating countries adopted the so-called Glasgow Climate Pact, despite an 11th hour intervention by India in which the final agreement was watered down from “phasing out” coal to “phasing down”. In an emotional final speech, COP26 president Alok Sharma apologized for this last-minute change.



COP 26 Logo.

So, was COP26 a failure? If we evaluate this using the summit's original stated goals, the answer is yes, it fell short. Two big goals were not reached – renewing targets for 2030 that align with limiting warming to 1.5 degrees Celsius, and an agreement on accelerating the phase-out of coal. India's intervention, supported by China to change the final wording to “phase down” coal rather than “phase out” dampens the urgency to shift away from coal.

Despite the shortcomings, COP26 led to a number of important positive outcomes. The world has taken an unambiguous turn away from fossil fuel as a source of energy.

Fire Season 2021/2022

In the previous newsletters we discussed, the meaning of Integrated Fire Management, and all its aspects as well as preparation for the fire season for the summer months,



Annual Veld Fire Planning Cycle: Western Cape.

Recap of key Winter preparation activities:

A) Stakeholder mobilization and communication

Action Item: Should you not yet have joined the GOFPA or not linked with your FMU leader or should a landowner not have the above information they are advised to contact:

The GOFPA at:

Tel: +27 (0) 28 425 1690

Fax: +27 (0) 86 585 2348

Email: info@overbergfpa.co.za

Address: Fire Station, Long Street,
Bredasdorp.



Wild fire burning (Photo Peter Viljoen).

B) Risk assessment

The completion of and keeping on record of the self-assessment and mitigated shortcomings should reduce the risk to landowners for litigation as well as losses.

Link to GOFPA self-audit: <https://overbergfpa.co.za/wp-content/uploads/2018/08/Rules-Checklist.pdf>

Additionally, the GOFPA, Overberg District Municipality and Overstrand and its partners annually map hot spots and high-risk areas for rapid response. Landowners are encouraged to engage with FMU leaders for reporting the risks to authorities.

C) Protection, prevention, and planning

Protection:

Useful links: Structure veld fire risk assessment: <http://landworksnpc.com/wp-content/uploads/2018/05/Veld-and-Fire-Risk-Assessment-Form.docx>
<https://overbergfpa.co.za/15-tips-to-better-protect-your-home-against-wildfires/>
<http://landworksnpc.com/wp-content/uploads/2018/05/Wildfire-Defensible-Space-A4.pdf>

Fire breaks:

All fire breaks should be completed by November and ensure that the fire breaks are compliant to the FPA rules as required by the National Veld and Forest fire Act.

FPA rules containing Fire break standards: <https://overbergfpa.co.za/wp-content/uploads/2016/08/goFPA-Rules-May16-AGM-approved.pdf>. Fuel-load reduction, ideally should be carried out in the winter months.

Prevention: Activities to reduce or mitigate fire risks including:

In the Kogelberg Biosphere area most fires are manmade and often accidental during daily activities. Make sure all staff and residents are aware what starts fires and that they must immediately report the fire. Ensure that staff and residents are aware what in their daily activities can start fires and ensure that these activities are limited or mitigated.



Wild fire burning at night (Photo Peter Viljoen).

D) Key Activities for the fire season: Early detection Rapid Response and Reporting:

Minimum fire-fighting requirements :

All members must comply with Chapter 5 of the NV&FF Act by having equipment, protective clothing and trained personnel as is reasonable for the extent of the member's property. Non-compliance to any or all these minimum requirements have to be supported by the relevant FMU and approved by the Fire Protection Officer (FPO). Landowners must ensure that their equipment is ready at all times as in the GOFPA rules.

<https://overbergfpa.co.za/wp-content/uploads/2016/08/goFPA-Rules-May16-AGM-approved.pdf>

Reporting fires:

Members must report all fires to the Overberg Control Centre (028 425 1690) or Overstrand Fire and Rescue (028 312 2400) and to the relevant Fire Management Unit (FMU) leader and neighbours.

FMU maps: Members and leader information

On the FPA website www.overbergfpa.co.za or email: info@overbergfpa.co.za.

Actions By Landowners:

A member and / or landowner who becomes aware of a fire must—

- Report the fire to the Fire Brigade
- Notify the FMU leader or, failing him or her, the FPA office.
- The owners of adjoining land; and
- Do everything in his or her power to stop the spread of the fire.
- A member and / or landowner who has reason to believe that a fire on any land may endanger life, property, or the environment, may, together with any other person under his or her control, enter that land or land to which the fire can spread to prevent that fire from spreading or to extinguish it.

Operational response and management/Incident command

- Members must adhere to the firefighting command structure as per the GO FPA Fire Management Plan and be conversant with the chain of command and communication procedures for your area.
- Members must be aware that the CFO or his delegate will assume command upon arrival.
- Members must verbally hand over the incident to the FPO and inform all other active participants at the fire of any specific danger areas.



Wild fires burning and helicopter throwing water
(Photo Peter Viljoen).



Interesting Environment facts

Around 27,000 trees are cut down each day just to produce toilet paper. The world has over 3.04 trillion trees in the world. However, 27,000 of them are cut down daily to make toilet paper. This translates to about 9.8 million trees annually.

Beef is one of the biggest causes of deforestation. Cows require 28 times more grazing land as compared to pigs or chickens. Cattle ranching contributes to deforestation turning one-fifth of all pastures and ranges into deserts



Oil pollution in the ocean (Photo Corlie Hugo).

5 million tons of oil end up in oceans. About five million tons of oil produced in the world end up in oceans every year

78% of marine mammals are at risk of choking on plastic. Seventy-eight percent of marine mammals are at risk of accidental deaths, such as getting caught in fishing nets.

The earth is about 1 million years old. The planet is about 1 million years old and has over 1 million species going extinct mainly due to human activities. Thousands more species are on the verge of extinction.



Fungi growing on tree bark (Photo Corlie Hugo).

Fungi play a highly vital role in the environment. According to environmental facts, fungi do the most in protecting the environment. From digesting minerals out of rock formations to consuming fossil fuel spills, and even de-radiating the environment

Ants weigh more than humans. The combined weight of ants on the planet is higher than all human beings. The world has over 7 billion people, and 100 trillion ants.

For more information:

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