

**Sinothando Shibe (DST-NRF funded intern 2018/19)**



I think the quote by Jacques Yves Cousteau, “The Sea, once it casts it’s spell, holds one in it’s net of wonder forever”, best describes my year in the marine unit. Starting the internship I had expectations that were influenced by marine research articles that I had read, what my lecturers spoke about and the very little voluntary experience that I had. So my idea of a ‘job’ in the field of biology was science, science and more science. When I started my internship at SANBI, everything I had learned before came into context but what was more exciting was to be exposed to new things, things that are not in the university’s curriculum. Very soon after starting my internship I got the opportunity to go on a sampling offshore expedition on the north of KwaZulu-Natal. Changed my life. I had never seen the sea floor in real time and I think it was during those moments that the sea casted it’s spell on me because I’m still in it’s net of wonder. From there on I knew that offshore ecology was where I wanted my career to go. I was then very fortunate to get the chance to further my studies with an offshore ecology project from SANBI and funded by SANBI! See how the spell works? Something that I really appreciated about being at SANBI was getting the opportunity to meet people from different sectors and learning how those sectors fit in the marine field. For example, in September, I was part of the IOI- Regional African Governance Course where I met people from all over the African continent and experts from different sectors. I left the course with a different perspective and with a clear understanding that there is more to marine science than just biodiversity. For me the internship was more than just work experience, it’s amazing how being in that environment contributed so much to my personal and academic growth. I left the internship with great certainty that I am in the right field as well as motivated to go further.

## Joti Daya (Botsoc funded intern 2018 - 2020)



In April 2018 I was given the rare opportunity to be part of the CREW (Custodians of Rare and Endangered Wildflowers) Programme. I have learnt and experienced so much in the past few months. From not knowing the basics of how to pronounce scientific terminology and plant names to proudly identifying a few plant species by myself.

One of the major highlights in my CREW journey was the rediscovery of a plant species endemic to Table Mountain that I made. It was the 23rd of November 2018 where the C-Team Crew group led by Gigi Laidler went up Table Mountain starting at the Water Works Museum. As usual after the field trip pictures need to be posted onto Inaturalist (Inat). A day later I received a very exciting comment from one of the iNat users that is considered to be one of the Fabaceae (Pea family) experts, I had posted a picture of the long lost *Aspalathus borboniifolia*. Further research done by me showed that this plant was long overlooked and was first found in 1932 and collected in 1956 where this was the last time this plant was seen. I was overwhelmed by knowing I had just rediscovered one of our lost plants. The 'lost plants' is a project that the CREW team started in 2016 where we identified all the species that had not been collected for over 50 years on the Cape Peninsula. A feeling that just cannot be expressed by words but one I shall never forget in this life time. To view this observation on Inat: <https://www.inaturalist.org/observations/18936113>  
*Aspalathus borboniifolia*

Another highlight was my involvement in the Karoo BioGaps Project which was a project under the leadership of SANBI. CREW was researching under the taxonomic group of Plants. The main aim was to explore the Karoo region with the aim of recording the occurrence of native plants and animals of the Karoo. The biodiversity was very poorly explored and documented with large gaps of fauna and flora distribution not recorded. Areas of exploration included areas targeted for shale gas exploration or fracking. This project was highly significant to me as well as for many conservation organizations. The local extirpation of our indigenous plant species due to anthropogenic change has obvious dramatic consequences on the ecosystem as they play an important role in primary production as well as in pollination. To be part of a project that hopes to ensure to protection of this area from human impacts is an honourable moment for myself in my career.

A great opportunity I have is getting to work with experts in the field as well as networking opportunities through attending conferences such as Fynbos Forum and SKEP (Succulent Karoo Ecosystem Programme). I had the privilege to do field trips with experts such as Dr John Manning and Pieter Winter who is a Senior Scientist based at Compton Herbarium, and of course my very own Mentor Mr Ismail Ebrahim who provided me with an abundance of fruitful knowledge throughout my internship.

I am grateful to the Programme for providing me with such rare and overwhelming experiences.

**Stephni van der Merwe (DST-NRF funded intern 2018/19)**



The skills (or lack thereof) of an intern

Ever wondered what SANBI interns actually learn in our internship year? It's not just fetching coffee, organising meetings or being a personal assistant, as many people might think (although I have done all of the above). No, more than that, we really do develop crucial skills almost daily, starting out with a serious lack thereof. Being part of the highly productive unit some call the VEGMAP unit and others the NBA unit, I wouldn't even be able to write down all of the skills that I have developed in just 1 year, given I only have a paragraph. From describing vegetation in the Thicket, to biodiversity assessments for the Prince Edward Islands. From collating massive amounts of data, to nifty new coding tricks. The diversity of projects I have been involved in, aptly reflects the biodiversity institute.

I am privileged to have been placed in the biodiversity research side of SANBI and it has fuelled my love for understanding our amazing biodiversity (even to do my PhD on this topic) and its often unnoticed impact on society. The experience I have gained and opportunities we have had during this time are unrivalled. I have even travelled all over the country. I had the opportunity to present a poster at the Biodiversity Planning Forum in St. Francis, to present at the NRF SANAP Symposium in Hermanus, to attend a meeting on Robben Island, a Thicket Workshop in Grahamstown, a CREW Workshop in Stanford and a field techniques course in Kruger National Park. Furthermore, there has been hands-on opportunities to meet famous scientists, inspire young(er) ones at a career expo, catch insects in the orchards and press plants in the Compton Herbarium, whilst making sure I clock in my hours in the field all around Cape Town looking for those beautiful Fynbos flowers with CREW (then uploading them to iNaturalist in the hopes that someone will identify them). I never thought that I could develop so many skills in such a short time, but with the mentoring I have received, it was possible. In conclusion: being an intern at SANBI

is amazing and my wish for anyone is to start their careers this way, as the staff are eager to teach you and really care about capacity building in the younger generations.

The lunch time walks into the beautiful mountain, the view from the office and the short walk from my cottage to the office dodging Pofadders, is just the cherry on top. From a truly grateful intern Stephni van der Merwe

### **Murendeni Kwinda (DST-NRF funded intern 2018/19)**



#### Finding my “career path”

When I walked into a biodiversity institute with a Biotechnology background, I never really knew what to expect. But all I can say now is that it’s been wonderful since the day I started. A great part of my internship experiences was about learning new things from biodiversity to the environmental aspects in general. Firstly, Kirstenbosch was welcoming and being under the mentorship of a highly motivated scientist Dr Tlou Masehela brought good knowledge and skills over time. I learnt more than expected throughout the internship and enjoyed every single part of it – even waking up at around 5am during field work days. I got to author my first publication, popular article, through SANBI’s animal of the week titled: Fall Army Worm (*Spodoptera frugiperda*). I also took a few Short’ Lefts across provinces such as the Eastern Cape, Gauteng and North West. It was all about field work (Genetically Modified maize and soybean), conferences (Biodiversity Planning Forum) and workshops (Training on Biosafety Clearing House).

During the field work, I learnt more about different plant species and how to identify them – which was not easy at first. Fortunately, it got better due to the courses and training offered at SANBI for skills development. In the field, I met interesting farmers who were at times either interesting or very serious about their business when it comes to crop production. Still on field work, before joining the GMO unit at SANBI, I never though field work requires so much preparations. From arrangements with farmers, planning meetings, budgeting and that I would have to work on weekends. Not forgetting the memorable moments of other field trips with the CREW voluntarily with Gigi Laidler. One good memory with my travels was my attendance at the 15<sup>th</sup> National Biodiversity Planning Forum held at Cape St Francis Resort,

Eastern Cape in June 2018. At the symposium, it was my first experience in an environmental sciences platform where students, researchers, scientists and governmental professionals presented their work on biodiversity and conservation. For my first and second National Workshop on Sustainable Capacity Building for Effective Participation in the Biosafety Clearing House (BCH), I was awarded two certificates for completing the respective trainings. At different platforms I met and interacted with very influential people, specialists in their fields and I also had a chance to impart what I learned to other students during the Biodiversity careers day. The highlight of my whole internship experience is the importance of “biodiversity and conservation”. I now value biodiversity and as part of my future plans, have registered for MSc Degree in Botany at the North West University for 2019/2020.

**Leandra Knoetze (SANBI funded intern 2018/19)**



I have been in love with nature and the outdoors since I was a little girl, always being outside and playing amongst the trees; saving little injured birds, small animals, and insects and just being captivated by the extreme beauty of creation – I was even called a real “bush child”. At school Biology was one of my favorite subjects and I always wanted to know and learn more about the environment; which is why I went on studying Environmental and Biological Sciences (Botany & Zoology as main subjects). During this time, I discovered that I have a tremendous passion for, and interest in biodiversity, plants and the conservation of our unique biodiversity - so I did my Honours in Biodiversity and Conservation Ecology and furthermore finished my MSc in Environmental Sciences.

After my Masters graduation October 2017 from North-West University, I didn't know what to do next – the SANBI Internship came across my path and I was so excited and fortunate to receive the position, even though I had to move about 1300 km to another province... I was excited to work with such an influential company as SANBI and to live in this beautiful paradise - Kirstenbosch. From day one this internship journey was amazing – with numerous networking opportunities, exposure to various fields, programs and different jobs, learning new skills, as well as gaining experience in the work environment. It was also amazing to meet so many like-minded individuals who shared my passion for the environment, biodiversity, conservation, invasives and wanting to make a difference – I felt like this is the place where I needed to be!!

Being an intern in the Biological Invasions Directorate and part of the National Status Report Team has offered me both depth and breadth across this specific field, putting into

perspective the importance and relevance of the detection, eradication and sustainable management of Invasive Species, as well as the application of its fundamentals to the problems faced by the real world. Most of my time was spent assisting with meeting arrangements, minute taking, updating and curating databases with information used to assess the status of biological invasions and their management. I also provided general, administrative and logistical support to the coordinator of the Status Report, my supervisor Dr. Tsungai Zengeya, by for example, being responsible for updating and maintaining a process document that documents all the processes undertaken to produce the Status report, as well as curating a database of data sources used and maintaining a list of new publications to use for the second National Status Report.

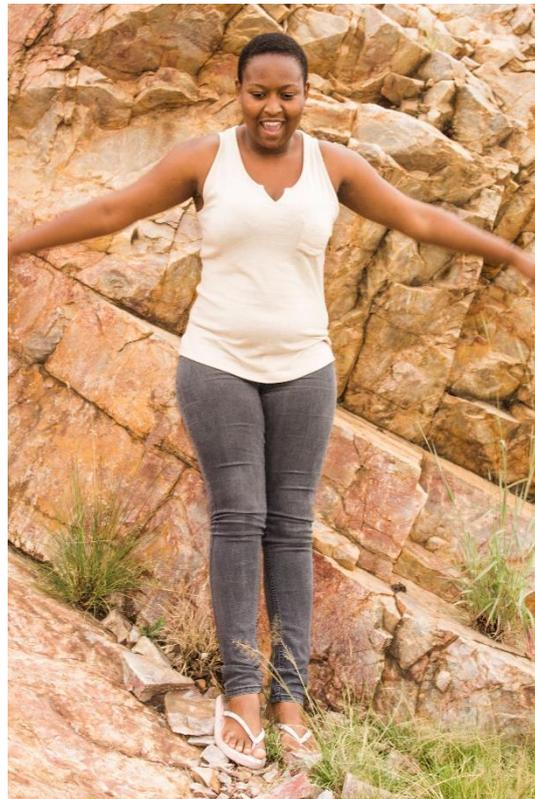
Some of my highlights of the year was seeing and learning more about the beautiful Fynbos plants by going out with CREW on fieldtrips, seeing exquisite rare and endangered wildflowers in their natural habitats – which is sometimes in the most lovely places (like on top of Table Mountain) and being able to live out my passion of being out in the veld. Other highlights included travelling to Venda – a new part of SA where I have not been before – to help with the organization of the National Biological Invasions Symposium; having unlimited access to the gorgeous Kirstenbosch gardens and just being surrounded by such amazing beauty, nature and flowers (CREW fieldtrips) the majority of my time. I feel truly blessed to have been given this opportunity and for the professional and personal growth it has given me... that will definitely be useful in my future career in Biodiversity and Conservation. I hope to remain part of this awesome Biodiversity Inspired group of people here at SANBI, keeping the connections made with awesome colleagues and friends and to know that together we can make a difference in our natural environment and conserve our unique biodiversity for future generations!!!

**Robyn Adams (DST-NRF funded intern 2018/19)**



Navigating my career after completing my master's degree in marine ecology was anything but easy. I decided that an internship within the Marine Unit would steer me in the right direction. During my internship year I gained valuable work experience and learnt important practical skills which will hopefully stand me in good stead within the conservation sector. I was given responsibilities beyond the scope of 'intern' and I contributed to two Realm technical reports for the National Biodiversity Assessment. The internship afforded me opportunities to take part in several personal skills development courses, one being the International Ocean Institute (Africa region) course in Ocean Governance where I engaged with policy implementation national and international levels. A highlight of my internship was being able to use my creative skills to design science communication materials which were effective in conveying messages to various stakeholders and fuelled my ambition to become a more effective science communicator. During my internship year, I received excellent support from my mentor, the marine unit and other SANBI staff members. Working at SANBI has been an invaluable experience and I was able to witness first-hand how science can be implemented into policy and how my own research could feed into management.

**Sedzani Simali (DST-NRF funded intern 2018/19)**



I was very excited to start my internship with SANBI last year. I still remember the first day I started like it was yesterday. Everyone at the Institution gave me a very warm welcome and I did not feel like a stranger. In wing B, where I was based, we were all like a family. I felt very comfortable and happy with my placement. I was under the supervision on Dr MM Le Roux, from whom I learnt a lot.

Training sessions were organised for me before I could be given any task. I went for mounting training, digitisation of literature and specimen, BRAHMS training, ArcMap training and last but no least a taxonomic training. All the trainings were done at the Institution. I was provided with necessary tools to get working from the word go. I had a computer, internet

access and a convenient bay where I sat in the Wing. On the same floor, my mentor's office was there so I was not very far from her. I was very happy to have access to the Mary Gunn Library and be able to borrow books. At SANBI, I developed many skills and gained a lot of knowledge. I was involved in the herbarium duties such as mounting, sorting and filing specimens. My mentor taught me many things about taxonomy that I did not know which are very useful for my career. I learnt about the type specimens which at first had no idea what they were, protologue description and many websites that I can use to extract information such as JSTOR, IPNI, BHL and Internet Archive just to mention a few. She took her precious time to explain in full detail these concepts so that I could understand. My mentor introduced me to QGIS which I used for Georeferencing which is a very good skill for one to have. I really gained relevant experience through this institution.

While I was an Intern, I got an opportunity to go on a field trip in the Eastern Cape where I made some collections of my own. It was a very good experience because this enhanced my skills. I felt as a part of a team because I assisted in preparation for the trip. In all honesty, SANBI was a very good host Institution. I would however recommend that they consider making a provision for their interns to attend relevant conferences such as SAAB or any other in which they can present whatever project they may have worked on during the course of the internship. I feel that this could be very beneficial for the intern to get more exposure to the scientific community.

#### **Randall Josephs (DST-NRF funded intern 2018/19)**



I was nearing the end of an internship with the Custodians of Rare and Endangered Wildflowers (SANBI) and the plans I had going forward with my studies and career were completely derailed which left me in the wilderness with regards to the direction I would follow. Fortunately, opportunity knocks when you least expect it. I was placed at the Compton Herbarium (SANBI) through the National Research Foundation Internship programme. This was an ideal placement because of my background in Taxonomy as well as the opportunities that were available once the internship had ended.

During my internship one of the major learning areas was being involved in the daily processes which occur with the herbarium. It was interesting to see all the different facets of the herbarium and how they work together. Another learning area was providing assistance on different research projects alongside scientists and students. The opportunity to learn

from established scientists was invaluable to me. The time I've spent in the herbarium has really given me the tools and focus to achieve the goals that I have set for myself.

My mentor, Dr. Anthony Magee was supportive and always made time to provide assistance or advice and also encouraged me to be better every day. With the support from my mentor and the entire herbarium staff, I felt comfortable to bring new perspectives and insights to the workplace. I am grateful to everyone at the herbarium who has made my time there so wonderful.

Through embracing the many challenges and opportunities, I have learned a lot about myself. I am committed to pursuing my dreams in all facets of life.