The CREW programme, which involves civil society volunteers in monitoring South Africa’s threatened plants, is a key component of the South African National Biodiversity Institute’s (SANBI) Threatened Species Programme.

This newsletter, produced annually, is written by CREW volunteers and staff who coordinate the programme and covers the highlights for the 2011–2012 field season, as well as important developments within the programme. As we enter 2012, CREW is in its ninth year of implementation. The programme has matured and grown extensively to a point where there is now a strong network of volunteers spread across South Africa’s threatened ecosystems. Populations of threatened plants are being monitored on an ongoing basis, with fascinating species being found regularly (see articles from CREW groups). Monitoring data on threatened plants collected by volunteers is being fed to SANBI’s Threatened Species Programme for use in updating the Red List of South Africa’s plants, and for providing baseline data for conservation planning and land-use decision-making. Thus, CREW volunteers are making a significant contribution to South Africa’s biodiversity monitoring and conservation.

Keeping the CREW network of volunteers going is a priority for SANBI’s Threatened Species Programme, however, it cannot be done in isolation and working with partners is essential. We are very pleased to announce that the Botanical Society (BotSoc) is becoming ever more committed to the implementation of CREW. BotSoc has a Memorandum of Understanding (MoU) with SANBI and financially supports the operations of CREW in the summer rainfall region in addition to paying the salaries of two CREW coordinators. The Botanical Society administrator works part time for CREW and a Botanical Society member sponsors the entire implementation of CREW in the Fynbos region. The Kirstenbosch Branch of the Botanical Society will, for the next two years, work with CREW in the Cape Town surrounds.

CREW, the Custodians of Rare and Endangered Wildflowers, is a programme that involves volunteers from the public in the monitoring and conservation of South Africa’s threatened plants. CREW aims to capacitate a network of volunteers from a range of socio-economic backgrounds to monitor and conserve South Africa’s threatened plant species. The programme links volunteers with their local conservation agencies and particularly with local land stewardship initiatives to ensure the conservation of key sites for threatened plant species.
on an exciting new project to train previously disadvantaged school graduates to both monitor threatened plants and work as plant conservation champions within their communities. The Botanical Society is thus demonstrating commitment to conserving South Africa’s flora and promoting transformation of the botanical conservation sector.

During 2011, SANBI has developed two new online tools to support the work of CREW volunteers and members of South Africa’s public interested in plant conservation. The first is an online site for the public to identify South Africa’s species called iSpot. iSpot allows citizen scientists and the public to contribute information to SANBI’s conservation and species databases. Contributions are made by uploading images and locality information of interesting sightings of plants, animals and fungi. Identification is done both by experts and by other iSpot users. CREW volunteers typically have an excellent knowledge of their local floras and hence are valuable contributors to iSpot. iSpot provides a platform where volunteers from across CREW groups can share their expertise and learn from each other. It is an opportunity to learn and share observations on a wider range of biodiversity than just plants, for those who may be interested. We are very pleased that many CREW volunteers have already started posting images of plants and animals and have been helping to identify plants posted by other iSpot users. iSpot will be developed over the next few years to include interactive keys for plant identification. If you have not yet started using iSpot, visit http://za.ispot.org.uk and get hooked!

The second online tool is the Red List for Plants (www.redlist.sanbi.org). This website, the first of its kind for South Africa, includes conservation assessments using the IUCN system for all of South Africa’s 20 689 recorded indigenous vascular plant taxa. Each species account includes distribution, habitat information and an explanation of why a specific species has been listed either under one of the categories of conservation concern or as not threatened (Least Concerned). The Red List website represents the official Red List of South African plants and a new version is released on a six monthly basis. Each update includes assessments for newly described species as well as species for which new information about the status of populations is available. Volunteers working with CREW generate most of the later data. The release of this national Red List website marks the end of the era of producing printed Red Data or Red List books. All future Red Lists for plants will be produced online.

The maintenance of Red List assessments for South Africa’s flora is a massive job. Around 100 new plant species are described per year and over 200 species are revised in new taxonomic treatments. New information indicating that populations have been lost to development or new previously undocumented populations been found, is received from CREW volunteers and consultants on a daily basis, with over 400 species needing status updates per year. These very high numbers indicate that CREW volunteers are doing an excellent job of monitoring our flora. Unfortunately, however, the team working at SANBI’s Threatened Species Programme has diminished in size over the past four years from six scientists to only one full time scientist. This is as a result of ever shrinking budgets at SANBI. Due to limited capacity, we have a significant backlog of data that needs to be added to the Red List website. Many of you will note that we have not yet updated the statuses of some of the species you have found. We will however get to them in the upcoming year. We are looking for volunteers to help us with updating this website. If you are interested in doing office work, preferably from the Pretoria office, please contact me at d.raimondo@sanbi.org.za.

This newsletter includes, for the first time, a section that profiles some of the staff members who have worked on the CREW programme during 2011 and 2012. As part of the CREW programme, we aim to train young scientists in plant conservation work. The staff section that can be found at the end of the newsletter will profile what type of work our interns have been involved in and reflects their experiences with us. We have been fortunate to have three interns with us over the past year, Anisha Dayaram, Martina Treurnicht and Lerato Hoveka, each of whom have contributed significantly to our work. Also included in our staff section is a special tribute to Isabel Johnson who has worked as the CREW manager for KwaZulu-Natal (KZN) since 2007. Isabel is transitioning from her role as CREW KZN manager to working on a related Botanical Society project to secure the conservation of important botanical sites via stewardship. Suvarna Parbhoo, who has worked closely with Isabel over the past few years and who will be taking over the reins as the CREW KZN manager, wrote the tribute for Isabel. Although Isabel’s main work focus is changing, she will remain linked to CREW and will always remain part of the CREW team. Fortunately for us, Isabel is far too passionate about threatened plants to ever stop working on monitoring them. Isabel, thank you for your pivotal role in getting CREW established in KZN. From the CREW team and the CREW volunteer network, we wish you the greatest of success with your next project.

Domitilla Raimondo
Threatened Plant Programme Manager
It is always a privilege and exceptionally rewarding to reflect on the activities of another year that has passed.

Thinking back to all the wonderful places we have visited, the amazing plants we monitored and the friendly, heart-warming people we met on our travels really gives one the warm ‘fuzzy’ feeling that so many people search for. Without trying to sound too repetitive (every year is a good year!), 2011 was remarkable. The major difference was down to the additional capacity we had last year. The SANBI intern programme has benefited CREW. In April, Martina Treurnicht started her internship with us. Martina completed her MSc degree in 2010 and worked on the Agulhas Plain assessing the impacts of flower harvesting on Fynbos. Martina has been a great addition to the team and has really helped to implement our objectives for the year. Martina is part of the National Research Foundation (NRF) and Department of Science and Technology (DST) internship programme and will be with us until the end of March 2012.

Our strengthening and maturing partnership with the Botanical Society of South Africa is also paying great dividends: Zikhona Mdalase is now much more involved in CREW and she has been a valuable addition to the team. Zikhona has been assisting us with administration, processing specimens and, more importantly, implementing our Environmental Education (EE) programmes. Zikhona spent four years working at the SANBI Goldfields Centre and brings a wealth of experience and knowledge to our EE programmes.

In October 2011, we had an opportunity to welcome another intern, Lerato Hoveka to the CREW team. Lerato is from Limpopo and completed her BSc. Hons. in 2010. Lerato’s project entailed working with two threatened Euphorbia species to determine the best protocol for propagating these species to relieve pressure on the wild populations that are being harvested.

Lerato will be with us until August 2012 and is working on a very exciting project. We are developing interactive identification tools for iSpot and Lerato is currently working on the methodology for developing the keys by using Babiana as the pilot genus for the project.

The field season was exceptionally good in 2011. Our main target for the year was to try to rediscover as many Critically Endangered Possibly Extinct (CRPE) species as we could. The year started really well when we rediscovered Oxalis levis at the Riverlands Nature Reserve. Due to the success of Maramodes Day (27 April, Freedom Day) we decided to promulgate a new botanical holiday. Oxalis day will now take place on 16 June (Youth Day) every year.

In September, we managed to cross another CRPE off the list. This time it was Muraltia ferox from the Worcester district. Margaret Levyns last recorded M. ferox in 1951 when she was working on a revision of Muraltia. There was a very vague description of the locality in the revision but with some sharp investigative work, the CREW team managed to relocate the original locality.

Another major achievement this year was engaging students at university level by presenting lectures on the Red Listing process and threatened plant conservation.
In addition to the lecture, we conducted a practical session and took students to critical sites to expose them to field based monitoring work that CREW is involved in. We managed to conduct successful Red List training days at two universities, Stellenbosch University and Nelson Mandela Metropolitan University. CREW organised two fantastic plant identification courses in 2011. In July, we had an Oxalis identification course presented by Kenneth Oberlander at Stellenbosch University. Kenneth is extremely passionate about plants (especially Oxalis) and has a fantastic way of teaching people Oxalis identification skills.

In September, Dr John Manning presented an identification course on the Iridaceae family. Dr Manning is not only a well-known expert on this family but has a great general knowledge of plants. However, the most amazing thing about him is his willingness to share his knowledge. After the course, we visited the Rondebosch Common for a practical identification session.

We would like thank our funders for making the CREW work possible and our fantastic volunteers that are making meaningful contributions to conservation of threatened plants.

CREW in KwaZulu-Natal 2011

Isabel Johnson

CREW continues to grow in KwaZulu-Natal, with CREW joining the Zululand Tree Society activities at False Bay, Usuthu Gorge, Amatikulu and Mapelane Nature Reserves. We’ve had an initial outing with people in the Dundee area looking for Kniphofia flammula, and hope to form a new CREW group there.

We’ve had some great threatened plant finds, but as these will be in the group report backs, I won’t go into detail here. For interest, CREW KZN plant find statistics since 2007 are as follows:

- New species: nine (mainly thanks to Tony Abbott).
- Critically Endangered Presumed Extinct: one (Turraea streyi, but may be extinct again).
- Critically Endangered: seven.
- Endangered: 51.
- Vulnerable: 88.
- Rare: 23.
- Data deficient: two.

Biodiversity Stewardship continues to support CREW, and we have contributed to site assessments at a number of sites, most notably a large property in the Utrecht and Wakkerstroom district, where we may have found a new species of Apocynaceae.

Our links with tertiary educational institutions continue, and threatened plant lectures and field trips were held with the

Group photo after a fieldtrip at Buffelskloof.
Durban University of Technology, University of KwaZulu-Natal in Pietermaritzburg, and University of Zululand. Feedback from the students via course evaluation forms was very positive and, hopefully, some students have been inspired to pursue careers in plant conservation.

A highlight of the past year was the annual CREW volunteer summer rainfall workshop, this time held in Mpumalanga and brilliantly hosted by John and Sandie Burrows at Buffelskloof Nature Reserve. We had some inspiring speakers including Angus Burns (WWF), Mervyn Lötter (MTPA), Brigitte Church and Roger Uys (EKZNW), John and Sandie Burrows (Buffelskloof), Anisha Darayam, Erich van Wyk, Lize von Staden and Sinegugu Zukulu (SANBI). There was also a very useful discussion on Brahms database progress led by Benny Bytebier in the state of the art new Buffelskloof Herbarium, and a fieldtrip down (and up) Buffelskloof gorge to find Prunus africana and dormant Bowiewa volubilis. The annual workshop is a vital part of CREW’s role in getting volunteers, conservationists, botanists and students together and we always have a plea for more networking time!

A great sadness for us this year was Kath Gordon-Gray’s death in January, a few days before her 95th birthday. A much loved, very special person, friend and fine botanist until the very end, she will be sorely missed. She was absolutely delighted with a few Christmas Bells (Sandersonia aurantiaca) found during a CREW outing growing in the middle of a eucalypt plantation (and thus doomed), which I took to her just before Christmas.

This is, very sadly for me, my last ‘CREW in KZN’ article, written as the CREW manager, as I am moving on to do Biodiversity Stewardship facilitation, funded by the Critical Ecosystems Partnership Fund through the Botanical Society, for the next couple of years. As part of my work with Stewardship, I will be involving CREW volunteers to help with monitoring of stewardship sites for special plants. Therefore, I will still be involved with CREW but my role is changing. The last five years have been very rewarding for me and I really hope that I have played some part in getting CREW established in KwaZulu-Natal and folk fired up about threatened plant conservation and surveying in the province. I hope that there will be time, between the demands of getting privately owned land formally proclaimed into conservation and finishing my (everlasting—but the end is now in sight!) thesis, to join you on CREW outings, and I will be very glad of your ongoing help with stewardship sites. As I think you all know I can never resist visiting new places and finding new plants! Suvarna will be taking over as the CREW KZN manager so you are in good hands.

A tribute to CREW in its help with research into the family Apocynaceae

Ashley Nicholas

Unlike many of the other disciplines of botany, plant systematics has maintained its connection with the many communities that use the classifications they produce.

There is a strong mutual relationship between nature lovers, amateur botanists, parabotanists, conservationists and professional taxonomists. Professional botanists (those making a living from botany) have long valued the contribution ‘nature lovers’ make to their science. This is especially true for those of us in academia, who do not get much...
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When I first started my MSc in 1980, I relied on amateur and field botanists for both observations and herbarium specimens. Some 30 years later, things have changed slightly in that superb digital photographs now often supplement these. Many CREW members are now also collecting both spirit and DNA material, both of which are essential to the progress of my research programme and its goals; as well as helping my postgraduate students with their studies. CREW, in particular, has energised botany in KwaZulu-Natal. Besides providing a home, a nexus, for both amateurs and professionals, the fact that CREW is an active, focused and enthusiastic network of extremely well informed people has enabled it to make major contributions to African botany. Besides the rediscovery of extremely rare asclepiads, some of which have been thought to be extinct (such as *Asclepias bicuspis*), CREW has expanded the known range of many species. In the last three years, its members and friends have discovered over six new species of asclepiad in KwaZulu-Natal. This is a staggering number for an otherwise well worked on family. My students and I have also benefitted from CREW outings and workshops. These have enabled us not only to get into natural areas (the ultimate taxonomic laboratory) but also allowed us to make new friends, and listen and learn from the collective wisdom of its members. My research is now focused on producing a well-supported evolutionary tree for parts of the
family based on gene sequences. Modern systematics has to pursue this route as it is demanded by the tenants of empirical science, and may be the only way we will find a solution to the generic problems that so plague the asclepiads.

I would therefore like, on behalf of my students and myself, to extend a sincere thank you to CREW and its members. You have played a big role in facilitating my research and I hope my association with you will play a part in the future as my students and I work towards resolving the complex taxonomy of the family Apocynaceae. I look forward to seeing our ties strengthen and grow.

Hypoxis workshop with Yashica Singh

Elsa Pooley

It was with enthusiasm and a sigh of relief that I signed up for the CREW workshop on Hypoxis by Yashica Singh, Curator of the KwaZulu-Natal Herbarium in Durban. Hypoxis has been almost as difficult to work on as Rhus/Searsia!

Yashica completed her doctoral thesis on Hypoxis in South Africa—a challenge if ever there was one! This subject had been the focus of previous theses (at Masters level) but Hypoxis remained a challenging genus. Yashica, supervised by prof. Snowy Baijnath and prof. Braam van Wyk, has given us a great new insight into the genus. We were privileged to have her to guide us at the workshop. She had gone to great efforts to assist us, bringing along dried herbarium specimens and enough fresh plants species to keep us all very busy!

Yashica gave us an overview presentation on the genus and her work. We then separated into small groups and started working on identifying the living plants which had been supplied. For those of you who were not there, you might have glanced at the specimens and provided a quick identification according to our rather scanty knowledge of these species. Remember, the field guides only illustrate a few of the species and do not offer the full range. Each group of participants debated and carefully considered each plant, following Yashica’s notes, checking against the herbarium specimens and checking the literature. It was demanding work, requiring careful attention. It took the whole morning. By the time we had broken for lunch, time had run out for the field trip.

It would be great to run this course again, to give us all a little more confidence in naming the species of Hypoxis! Thank you Yashica, and Suvarna and Isabel of CREW for organising the workshop.

South African Transformation: Biodiversity Facilitators changing the face of conservation

Bettina Koelle

There has been some discussion about effective ways to transform the South African Conservation Sector in the past years. Many successful initiatives have reached young adults and kindled a passion for ecology and the environment. However, the challenge remains; how can we ensure that this passion can actually translate into a career in the conservation sector? Difficult access to information, lack of self-confidence, obligations to financially support family members and
living far from urban centres are just some of the many challenges young people are faced with.

To bridge this gap, the Biodiversity Facilitator Programme offers formal employment to young adults with a passion for conservation and the environment after matriculation. The employment includes an intensive capacity development programme including a range of skills that are crucial for learning more about the multiple aspects of conservation, such as using a computer, facilitating a community meeting, developing a healthy self-esteem and technical skills like monitoring methods. The aim is for these young adults to become young professionals in the conservation sector—to achieve transformation and ensure that the next generation will treasure our amazing biodiversity and to be an inspiration and role model to other young adults.

If you would like to find out more about the Biodiversity Facilitator Programme, please contact: Bettina Koelle (bettina@indigo-dc.org).

The EDRR Programme: Updates from KwaZulu-Natal and Western Cape

Reshnee Lalla, with contributions from Jabu Sithole and Ernita van Wyk

“A stitch in time saves nine”

The Early Detection and Rapid Response to Invasive Alien Plants programme (EDRR)* targets species before they become widely established. Two obvious benefits of this approach are preserving South Africa’s pristine biodiversity before it is too late and saving on excessive costs of invasive alien plant control.

The EDRR Programme has a national focus, with regional units established in different provinces to facilitate effective functioning and stakeholder collaboration at a localised scale. Updates from KwaZulu-Natal and Western Cape units are highlighted in this article, as well as a few invasive alien plants we would like you to keep a lookout for.

KwaZulu-Natal

Firstly, we would like to express our gratitude for your support and assistance in sending us reports of invasive alien plants we highlighted in the CREW newsletter last year (Sagittaria platyphylla and Diplocyclos palmatus). With your assistance and by us conducting surveys, 12 localities of Sagittaria platyphylla (delta arrowhead) have been recorded and mapped from four provinces, and the number of confirmed Diplocyclos palmatus (lollipop climber) localities in KwaZulu-Natal has increased. A pamphlet on D. palmatus is being finalised and will soon be distributed to further increase awareness and detection of this species.

Another invasive alien Sagittaria species (S. latifolia, common name: arrowhead) which poses a threat to wetlands was also located in KwaZulu-Natal and the Western Cape. Sagittaria latifolia differs slightly from S. platyphylla as it has broad arrow-shaped leaves.

We are now initiating plans for a rapid response to both Sagittaria species. Field trials have been initiated for a chemical control method, and a contractor will soon be appointed to conduct further trials in KwaZulu-Natal. As
recommended by the herbicide registrar, we will be using a wetland-friendly herbicide that has no surfactants or harmful compounds that kill aquatic fauna. It dissolves very quickly in water and does not form residues.

We are also in the process of finalising contracts for clearing *Furcraea foetida* populations in KwaZulu-Natal (this species was also highlighted in last year’s CREW newsletter). In addition, seven contractors have been appointed to conduct rapid response clearing activities on pompom weed, formosa lily and other emerging weeds across the province. The unit saw an increase in staff capacity with the appointment of a technical assistant and contract manager during the latter part of 2011.

KwaZulu-Natal staff and interns presented papers and posters at conferences such as the South African Association of Botanists (SAAB) conference, 39th Annual Workshop on Biological and Integrated Control of Weeds, and the Asian-Pacific Weed Science Society Conference in Australia. We are continuing to survey arboreta across the country to assess naturalised invasive alien species at these sites, as well as increase South African herbaria collections of invasive alien plants. Expanding our stakeholder network and harnessing existing relations in the province are crucial to us. Participation in annual CREW summer rainfall workshops and joint field surveys are just some examples of successful EDRR-CREW collaborations, which we hope will continue in the future.

**Western Cape**

A technical assistant and contract manager were appointed in the Western Cape during 2011, making us a ‘fully fledged’ unit, so to speak. We are more effective and able to make more structured progress on the suite of projects under our wing. Projects in the Western Cape include *Lythrum salicaria*, *Melaleuca* species, *Asphodelus fistulosus* and work on several *Acacia* species (*Acacia paradoxa*, *A. implexa* and *A. stricta*). With the arrival of our technical assistant, we have also been able to develop an effective tool to help us respond more effectively to unsolicited records that we receive from spotters. Staff members attended the Fynbos Forum and the Ecology and Management of Alien Plant Invasions conference (EMAPI) which was held in Hungary. We also hosted Mario Lesnik from Slovenia who has been assisting us with various aspects of *Lythrum salicaria*, and we continue to work closely with a suite of partners, such as MTO Forestry, PG Bison, SANParks, CapeNature, Friends groups and the Australian National Herbarium to manage incipient invasions in the Western Cape.
Please help us locate these invading culprits...

Special thanks to Kate and Graham Grieve (CREW volunteers) for helping us locate *Epipremnum aureum* in the Southbroom area.

*Epipremnum aureum* (silver vine/ money plant), a climber of the Araceae family recognised by its huge green leathery leaves with white or yellow flecks, is a potential alien invader to South Africa.

*Melaleuca quinquenervia* is an evergreen tree (12–35 m tall) of the Myrtaceae (guava family) with sister genera such as *Eucalyptus* (gum trees) and *Callistemon* (bottlebrushes). *Melaleuca quinquenervia* has pale cinnamon to whitish, flaking bark and leaves that are grey-green, alternate, lanceolate to oblanceolate. Leaves smell of camphor when crushed, and have five distinctive parallel veins (except on seedlings). White to cream-white flowers (50–100 mm long), arranged in cylindrical ‘bottle brushes’, are produced throughout winter and autumn; this species’ fruits are small, woody, cylindrical capsules, arranged in clusters. Once naturalised, *M. quinquenervia* are usually found near small streams or standing water and spreads mainly by seeds that are easily dispersed by wind or water. Native to Australia, *M. quinquenervia* has invaded natural forest, riparian zones, open swamps and wetlands in the Florida Everglades of the United States of America, costing the US government US$ 25 million in control efforts between 1989 and 1999.

*Rivina humilis* is a short, perennial herbaceous plant (0.6–1.0 m) belonging to the Phytolaccaceae. Leaves are oval-oblong and very thin (with an almost ‘flimsy’ texture), sometimes displaying a reddish tinge along the margins. Racemes are white/pinkish turning green. Flowers are produced during spring to summer, and fruit are bright red (hence, the common name bloodberry). Although these berries may appear juicy and edible, they should not be consumed, as this plant is poisonous to humans. Birds eat these berries and facilitate the spread of the species.

*Rivina humilis* originates from South America, and has been noted as weedy in other regions of the world e.g. Australia, La Réunion, Fiji, French Polynesia, Hawaii and Japan. Being shade-tolerant, *R. humilis* thrives as an understory species and is capable of displacing small understory indigenous vegetation in low elevation pastures and forests. Stakeholder engagement in KwaZulu-Natal has revealed that this species is also commonly found in gardens in this province, so it is highly likely that *R. humilis* is much more widely distributed than we originally thought.

* EDRR—Early Detection and Rapid Response Programme to Invasive Alien Plants is positioned in the South African National Biodiversity Institute (SANBI), and funded by the Department of Environmental Affairs, Natural Resource Management and Working for Water Programme.

The EDRR Programme can be contacted at alienplants@sanbi.org.za.
SANBI has recently released a fantastic website called iSpot, which is taking citizen science in southern Africa to a completely new level. Using a Virtual Museum interface, iSpot aims to foster greater public appreciation and participation in biodiversity recording, monitoring and identification. Unlike other Virtual Museums, iSpot is unique in that it allows anyone to share their discoveries in nature by uploading georeferenced photographs of their observations, whether plants, insects, animals, fish, birds or fungi, onto an easy to use database. iSpot, however, is so much more than merely a collection of characterless data—it is a dynamic portal where nature enthusiasts, from beginners to experts, can share their knowledge and help each other identify species. In this way, iSpot is user driven and is a fun and lively way to progress from a novice in identification to a learned expert.

Since its release in March last year, the site has already gained over 450 registered users, who have submitted over 8,500 observations, of which most (99%) have received identifications. Societies can register on iSpot so that each time a member posts on the site, the society badge is displayed and links back to the society webpage. So far, the most active society on iSpot is BotSoc, but CREW (the fourth most active society) has the most registered members. As an iSpot user, you have the freedom to use iSpot as a tool to run your own survey or atlas project. For instance, you could appeal to the iSpot community to help acquire distributional data on a certain *Pelargonium* species you are interested in. iSpot allows you to create a unique tag that others can use to label their *Pelargonium* observations relevant to your project so that all these records are saved together in a searchable category. Similarly, if you are interested in compiling an inventory of species found at your own local park or reserve, the same concept applies. The Early Detection and Rapid Response (EDRR) team at SANBI who deal with invasive alien plant species are using iSpot in this way, allowing the public to help detect and monitor alien invasive species. Species that are of conservation concern or at risk of being targeted by collectors automatically have their locality data hidden on iSpot for obvious safety reasons. There is also the option to 'hide precise location' if you are worried about people visiting your garden to view special specimens.

No matter how common or ‘uninteresting’ a species may seem, iSpot encourages all submissions as highly valuable for science. In this way, some spectacular discoveries have been made. Marland Holderness, a regular and avid iSpotter, uploaded a photograph of a strange parasitic plant she found while walking at Cape Point. The plant turned out to be *Cytinus capensis*, last seen 40 years ago and thought to be extinct. Another important find was that of a strange looking *Erica* seen on Table Mountain and posted on iSpot by Corinne Merry. The obscure plant attracted a lot of attention and was identified by Ross Turner as the European species *Calluna vulgaris*, a possible invader and threat to our own *Erica* species—all within 48 hours!

The best way to get a feel for the site and how it works is to simply sign up and upload an observation of your own. Most of us have hundreds of photographs stored in files on our computers, unused and forgotten. Now is the chance to make a difference by contributing your little bit to help further our understanding and conservation of our rich biodiversity. Who knows, you might even make a headline discovery in your own backyard! Visit iSpot at [http://za.ispot.org.uk](http://za.ispot.org.uk) (don't forget the 'za'!).
Mpumalanga Plant Specialist Group (PSG)

Barbara Turpin

Based in Nelspruit, PSG was established in 1994 and has a membership of about 50 plant enthusiasts, both amateur and professional. The Group’s involvement with CREW began in 2007, and since then, many of our outings have been geared towards searching for plants whose existence is threatened by habitat loss and medicinal harvesting in Mpumalanga.

In February 2011, we travelled to Mac Mac Pools, near Mac Mac Falls in search of the small herb, *Alepidea basinuda* subsp. *subnuda* (EN), and found one population scattered in the damp montane grassland. Two months later, we visited farm Paardeplaats near Lydenburg to look for *Crotalaria monophylla* (VU) which was previously only known from the type specimen collected by the artist Anita Fabian and described by Gerrit Germishuizen. The plants we saw growing in the grassland were in fruit, making our find even more special, as only flowering records existed until then. We also discovered several of these on an adjacent farm that day. A CREW outing in 2010 to look for *Leucospermum saxosum* (EN) was unsuccessful, but a new locality for this attractive shrub was discovered on a PSG outing in May 2011 between Bourke’s Luck and Graskop. In October, Paul Wilkin (*Dioscorea* specialist at Kew) and Muthama Musaya (Cyperaceae specialist based at the University of Cape Town) joined a few members for the annual monitoring of the extremely endangered endemic *Dioscorea strydomiana*, the results of which were, sadly, very discouraging. For our last trip of the year, we went to the Lowveld, just outside the Kruger National Park in search of *Eriosema naviculare* (EN) and found a population of 52 plants surviving near a local hospital.

A-Team

Suvarna Parbhoo

As the name suggests, the CREW All-over, or A-Team, doesn’t have a specific area but visit sites which don’t fall within an existing group’s local area. The A-Team had to adorn thick skin this field season as most of the outings provided null-finds.

Professor Snowy Baijnath introduced me to the critically endangered *Kniphofia pauciflora* population at the Clairwood racecourse (Durban). The species was previously thought to be Extinct in the Wild until prof. Baijnath confirmed the existence of a small natural population surviving in the racecourse’s grassland fragment. We are grateful for his perseverance to ensure the population’s survival.

The A-Team headed out to Dundee early in December to locate the endangered *Kniphofia flammula*. However, this was an unsuccessful trip due to severe droughts in the area. We plan to revisit the area later in the season.

We had a post-Valentine’s Day outing to the Buddhist Retreat centre in Ixopo, southern KwaZulu-Natal. Our aim was to locate *Dioscorea brownii* that was last seen on a Botanical Society trip in 2005. Despite being in the correct area, we were unable to find the population. To make up for this disappointment, we ended the day with a scrumptious ovo-lacto vegetarian lunch.

Among the expeditions into Limpopo Province and northern KwaZulu-Natal planned for this year, we will be checking on the fortune of the beautiful *Aloe craibii* (CR), which grows in the Barberton area of Mpumalanga.
Every year we aim to visit most of the forest types in Zululand, such as dune forest, swamp forest, sand forest, scarp forest, bushveld, coastal grassveld/palmveld and coastal lowland forest. I think we achieved this except for the coastal lowland forest.

Our outings were to:

• Zulu Nyala, Heatonville, where we identified and labelled trees around the main rest camp at the request of the owner.
• Ongoye Forest.
• Eastern shores, iSimangaliso.
• Ndumo and Usuthu Gorge.
• Amatikulu Nature Reserve.
• Maphelane Nature Reserve and iSimangaliso Wetland Park.

Some of us also attended the CREW meeting hosted by Francois and Ronel du Randt at False Bay as well as another trip by some members to Phinda to assist with tree identification.

We had an introductory visit to Usuthu Gorge Community Game Reserve and it has certainly whetted our botanical appetite to visit there more often, with a date already confirmed for 2012. We spent a weekend there in August, which is not the best time to look at trees, as most of them do not have leaves let alone flowers or fruit. Nevertheless, we still managed to identify well over 100 species. We all stayed at the Ndumo KZN Wildlife rest camp where we virtually swamped the campsite and took up most of the hutfed accommodation. We also explored the Ndumo Game Reserve at our leisure and visited the fantastic hides over the Inyamithi Pan and Red Banks at the Usuthu River. Thank you to Isabel and Suvarna for completing the species list of our observations so promptly—it was done before we departed!

Underberg

Julie Braby

We started our year off with an open day for any interested parties to join CREW. This was held on Anne Rennie’s farm in her fantastic library that has every flower book ever printed. We had a permanent PowerPoint display of the flowers of our area and many of Anne’s pressed flower specimens were on display.

After a winter of heavy snowfalls, the water table was very high but unfortunately we had very late spring rains and our flower season was a little delayed.

Some of our members attended the excellent Hypoxis identification course held at Kranzkloof Nature Reserve.

We continue to monitor the SPCA grassland which gave us a wonderful display of Orchids over the festive season. This is owned by the municipality and had been set aside for medium density housing which we have...
been assured will not happen, as the area is under bedrock and therefore too expensive to develop.

Other outings included visits to two wetlands full of the endangered orchids, *Disa scullyi* and *Satyrium hallackii*. Both of these are on private properties and we are so fortunate that the farmers are interested in their protection.

We are fortunate to have the Sani Pass on our doorstep and a highlight every year is the Wildflower walk down the pass. This year the flowers were exceptional and 83 keen enthusiasts attended the walk. We look forward to the rest of our beautiful but short flower season.

The Umgano Project is a community owned Biodiversity Stewardship site of 7 000 hectares situated in southern KwaZulu-Natal between Creighton, Coleford and Ntsikeneni.

Of this, 1 500 hectares of grassland, indigenous forests and Protea woodland in the higher altitude areas have been set aside for a Nature Reserve which is in the process of proclamation. Part of this very comprehensive project is training of the community, in particular the five field rangers from the local community.

CREW has been actively involved in the Umgano Biodiversity Stewardship site for the past two years, doing botanical surveys of the area, as well as basic botanical training of the field rangers. Training so far has included grassland and forest studies, surveying of the *Encephalartos ghellinkii* colony with Ezemvelo KZN Wildlife scientists, and assistance with biodiversity index monitoring. We have a comprehensive monthly programme planned for 2012. The guides are also receiving training in bird identification from BirdLife South Africa.

The local branch of the Botanical Society (KwaZulu-Natal Inland Branch) has generously donated new copies of Pooley’s Wildflower and Mountain Flower Guides, as well as used copies of Pooley’s *Trees of KwaZulu-Natal*, and Van Oudshoorn’s *Grasses of South Africa* to the field guides.

**CREW and the Umgano Project**

Isabel Johnson

A view of Umgano showing indigenous forests, Protea woodland and high altitude grassland.

Field rangers using the flower guides donated by BotSoc. in the Umgano grassland.

Field of *Disa scullyi*.

*Disa scullyi*. 

Field of *Disa scullyi*. 

A view of Umgano showing indigenous forests, Protea woodland and high altitude grassland.
The Boston CREW group was quite busy during the latter half of 2011. Herewith then follows a short diary of our outings.

Edgeware (17 November 2011)
The great number of flowering *Watsonia socium* plants took pride of place. The wildflowers were in profusion all over the hills.

Watershed (2 November 2011)
We discovered unusual and interesting plants below a cliff-face: a *Ledebouria* species with flowers facing downwards and two *Brachystelma petraeum* plants. The unusual *Ledebouria* with hanging flower heads and striped leaves was sent for identification.

Wahroonga (5 October and 24 November 2011)
This was a notable visit for the re-discovery and additional discoveries of at least 25 *Asclepias bicuspis* plants in flower. The plants were rather widely dispersed.

Sterling (24 November and 30 December 2011)
This trip was memorable for a number of reasons. Firstly we were drenched by rain, but we also had the opportunity to explore the splendid grasslands on the hilltops which have, for the first, time become accessible to CREW. A mass of *Asclepias woodii* plants were seen.

Impendle Nature Reserve (end November 2011)
Prof. Ashley Nicholas, Adam Shuttleworth and Rene and Melissa Glen was accompanied to Impendle Nature Reserve to locate *Asclepias concinna*. Only one plant was seen and it had been eaten off at the tips. We saw numerous other Asclepiads, although some were not flowering.

Palmer Four farm (8 January 2012)
The annual outing to this protected area, set aside and now conserved by Ivanhoe farm, took place on 8 January 2011. This is the eighth annual visit, so a vast resource of records has been built up over the years.

Ivanhoe (18 January 2012)
Accompanied by John Campbell, we visited four specific places. We decided on three to be fenced off for their conservation value. The third place has a sensational view over the extensive indigenous forests and a cottage for visitors is planned here.

Wahroonga-Glendale (25 January 2012)
This outing involved the preparation of a species list, as the site is set aside for biodiversity stewardship. The hike over Wahroonga farm was met with a profusion of flowers. We then went on to Glendale hills, where the CREW team chose suitable areas for sampling and within those areas, chose ten one metre square sections where all the plants were listed. This was done twice. Albert Mallol, a visiting CREW volunteer from Spain, joined us and his enthusiasm was rather contagious.
UmVoti
Vic Schutte and Sue Swan

During March and April 2011, several trips were made to wetland areas in search of *Nerine pancratioides* (VU) without success.

During one of these excursions, a second small population of a possible new species of *Watsonia* was found and a further specimen was collected for submission to Kirstenbosch.

On 10 August we undertook an exploratory visit to a west facing grassland near York where we thought *Leucospermum gerrardii* (NT) might occur, but it was found to be over-grazed with few forbs. We proceeded to a grassland near Dalton on which rocks from a cane field had been dumped, where we found many common grassland flowers as well as a possible population of the endangered *Aloe neilcrouchii*.

A visit to Blinkwater Nature Reserve on 8 October had no target species—just an outing to enjoy the flowers which were at their best for the first time in many years. We saw large numbers of *Merwilla plumbea* and a new record of the rare *Aspidonepsis cognata*.

An Ahrens grassland, rich in Asclepiads, was visited on 15 October with Adam Shuttleworth, a postdoc from University of KwaZulu-Natal working on this group. We found *Asclepias dregeanus, Aspidoglossum cf. glanduliferum, Miraglossum verticillatum*, two species of *Sisyranthus* (possibly *S. virgatus* and *S. fanninii*), *Pachycarpus grandiflorus, P. natalensis, Xysmalobium involucratum, X. gerrardii* and *X. parviflorum* on a small area that had been mown for the major portion for a year or two. This site may be a possible candidate for a Biodiversity Stewardship.

We again visited Blinkwater in mid-January 2012 and headed westward to recheck on some very large aloes that Isabel and I had seen a couple of years ago, and thought were very large *Aloe boylei*. We were delighted to find not only the original ones, but several other largish groups and these have been identified as *Aloe neilcrouchii*. The list of flowers identified for this lovely area over the last ten years is well over 230 different species!

The hunt for *Aloe neilcrouchii* is on and on 25 January 2012, Vic and I visited the site mentioned earlier, on the Dalton-New Hanover road, and to our delight found what we are sure is *Aloe neilcrouchii*.

Umvoti group with a handsome population of *Aloe neilcrouchii* (EN).

Mkhambathini
Alison Young

The Mkhambathini CREW team organised 12 visits this field season.

We made two return visits to Ixopo to collect cuttings of the Critically Endangered *Helichrysum citricephalum*, which I am trying to grow at the University of KwaZulu-Natal’s botanical garden. It is a robust perennial shrub with evergreen silver foliage and good horticultural potential, proving rather difficult to root.

A return to Inhlamvini Mission to look for the rare *Tetradenia tuberosa* was unsuccessful.

Two visits were made to the mist belt grasslands of Baynesfield and Byrne Valley to check three Hilton Daisy populations, however two populations were not found due to poor visibility.

Alison and Mary Thrash in the field.
Other visits included:

- One visit to Killarney Valley near Cato Ridge.
- Two visits to two properties in the Ashburton area (bushveld type).
- Two return visits to Priscillavale to collect flowering material for voucher specimens.

Successful? No new localities for our formal list of target plants were found, however we were grateful for the opportunity to broaden our knowledge of the local flora and to add to the local species lists.

What we did find was a new species for the area (*Indigofera obscura*) and more localities for *Eriosema populifolium*, *Satyrium woodii* and *Kniphofia northiae*.

This season has seen poor rains. As a result of this, the grassland flowers did not put up their usual spectacular show, but we were able to get to places that are usually drowning in mud in January. Further return visits are planned for the next two months to some of these same sites to collect material in flower for vouchers.

Thanks to all the landowners for their invitations, their time and hospitality and for giving us the opportunity to enjoy their flora.

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**Highway**

Andrea Abbott

This season, Highway CREW has visited grasslands to the far west of eThekwini. Trafford Petterson from the municipality’s Environment Department has joined us and his knowledge of the region and the flora has proved invaluable.

In October, on an extensive grassland adjacent to ‘Half Way House’ at Cato Ridge Golf Course, we found three target species—*Merwilla plumbea*, *Boophone disticha* and *Hypoxis hemerocallidea*. Undoubtedly, other notable species occur there and we need to return. It is rather worrying that wattles and pines border the site and there is a degree of bugweed infestation while refuse is commonly dumped there. There’s work to be done to get the owners to appreciate what they have!

Trafford took us to see another vast swathe of untouched grasslands.
nearby. We couldn’t stay long, but we intend to return for the area promises many special finds.

In November, we found the same three species mentioned above on Whaleback hill near Hammarsdale. It’s also where we found *Dierama pallidum* the previous season. I now just need someone to find her glasses that she lost somewhere on that site...!

Suvarna and I joined Errol Douwes, also from the eThekwini Environment Department at a small grassland in Crestholme, one of several that the Municipality has bought in the area. Having been burnt and after some good rains, it had turned into a lovely flower garden where many of the species common to the area were flowering. Just as we were leaving though, we found a *Sisyranthus* species on the very edge of the

site. Based on input from Isabel Johnson and David Styles, we’re fairly sure that it’s data deficient *Sisyranthus anceps* which was found in Hillcrest last season. Prior to that, it was last collected in the region in Inanda in 1880.

Late in January, we visited a site in Monteseel overlooking the Valley of a Thousand Hills. This is a rich grassland with spectacular views and it yielded two target species—*Senecio exuberans* and *Hypoxis hemerocallidea*. We also had confirmation, from CREW Mkhambathini champion Alison Young, of the third target species, *Brachystelma pulchellum*.

Regular Thursday walks kept us well occupied doing surveys and CREW reports in places like Mbumbasi Nature Reserve near Oribi Gorge, Vernon Crookes Nature Reserve and as many pieces of coastal grassland (all under threat of development of one kind or another) as we could find. One disappointment has been the inability of Hibiscus Coast municipal manager to put his signature to paper to finalise the already approved Red Desert Nature Reserve. This valuable area comprises grassland, vlei, rocky heights, small forest patches and the southern krans of the Umtamvuna Gorge and, of course, the Upper and Lower Red Desert with 300 000 year old Sangoan artifacts. That it falls within the Pondoland Centre of Endemism merely exacerbates the uncertainty.

One serious disappearance is the missing *Turraea streyi*, named for Rudolf Strey who used to be the curator of Natal Herbarium. Strey polished his interest in botany in the Namibian Andalusia Internment Camp during World War II—the courses run by the inmates were recognised by German universities after the war. I am aware of only two natural locations both of which are lost in *Chromalaena odorata* thickets; there was an early collection from around Stanger also named *T. streyi* but David Styles, who has seen the plants, feels they are probably a different taxon. The only plant to have survived until
recently was an *ex situ* population planted by Hugh Nicholson in Skyline Nature Reserve which survived until recently. However, we are unable to find them now. We shall be attempting to relocate the plants this year.

A visit to Umdoni Park was undertaken to relocate the type specimen of *Beilschmiedia natalensis* watched for seven years. Finally Hugh Nicholson and Rudolf Strey collected fertile material and the name was subsequently changed to *Dahlgrenodendron natalensis* after noted Swedish taxonomist Rolf Dahlgren. This task was successfully accomplished but there remains the need to locate further specimens there.

Our herbarium continues to flourish with volunteers Dorothy McIntyre, Joan Smith (curation), Ruth Mathias (data capture), Kate Grieve (records) and Graham Grieve (specimen photography) and strong support from EKZNW ecologist dr. Roger Uys. It is now registered with the Index Herbariorum as the Hugh Nicholson & Tony Abbott Herbarium with the acronym of PCE—chosen to reflect the fact that the majority of specimens are from the Pondoland Centre of Endemism.

The 1990 forest survey 50 m × 50 m plot is under study by Rob Scott-Shaw and looks set to produce some interesting results; interesting as this is the only long-term research plot in our scarp forests.

As always, our warm thanks go to the sterling CREWers Tilla, Isabel and Suvarna without whose efforts we would be losing much more biodiversity than we do already.

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**Port Elizabeth**

Clayton Weatherall-Thomas and Merika Louw

Once again, we are resurrecting plants from the proverbial ‘dead’. Our latest find, with the aid of Ismail on his annual visit in October, is *Senecio hirtifolius*, a furry dwarf succulent shrub that grows on the rocky edges of plateaus in grassy fynbos.

This species is listed as Critically Endangered Possibly Extinct (CRPE). The good news is that it was discovered in Hopewell Conservation Estate, a new nature reserve.
reserve on the outskirts of Port Elizabeth, hopefully securing the future survival of this species. Other Species of Conservation Concern (SCC) that occur on 2,500 ha of near-pristine Fynbos and Thicket vegetation at Hopewell include Aloe micracantha, Cyrtanthus obliquus and possibly Trichodiadema orientale.

Another rediscovery made by Wesley Berrington, the Reserve Manager of Van Stadens Wildflower Reserve, is Lobelia zwartkopensis (CRPE). This sprawling little plant, which doesn’t look anything like a Lobelia, is a succulent annual with tiny white flowers that only pop up in ephemeral wetlands after good rains. We will definitely be spending time looking for this species in the near future.

On a Dendrological Society field trip to the Gamtoos River Mouth Conservancy, another population of the pink everlasting, Syncarpha recurvata (EN), was discovered. On a Botanical Society walk from Kini Bay to Laurie’s Bay, in marshy coastal fynbos, we also discovered a large population of Satyrium hallackii subsp. hallackii (EN). We have also done some alien clearing around a very small, but precious population of Aspalathus clifortiifolia (CR), growing along a busy road in Summerstrand.

An exciting new development for our group is that the Nelson Mandela Bay Metropolitan Municipality, in partnership with the Wildlife and Environmental Society of South Africa, is setting up a Biodiversity Stewardship Programme, following in the footsteps of the other provinces. This will allow us to visit sites on private land, as well as receive taxonomic training. A Stewardship Training Workshop was held in December to introduce the concept of Stewardship to volunteers and assess how CREW would be involved in the qualification and monitoring process.

2011 has been a difficult year with a number of setbacks—our CREW GPS, field guides and some of our data sheets were stolen from the boot of a car, as well as a laptop and other essentials. We are choosing, however, to see this as encouragement to work harder in 2012 and rebuild our field guide. All for the greater good!

In our area, we don’t have as many ‘special species’ as other areas of the Cape Floristic Region. Nevertheless, our ramblings on the farm Honeyville in 2011 have been very exciting with several eye-catching blooms popping up. Species like yellow Rafnia elliptica, deep coloured Erica curviflora, hillsides of Erica pectinifolia, and the striking Gladiolus mutabilis were all seen. The latter were in flower in August and exactly four weeks later, there was no sign of them. That all goes to show that if you’re not out there you can easily miss the treasure.

As we walked up an Aloe-clad koppie in May, we initially thought we were looking at Aloe arborescens. Then we thought it must be A. ferox, but after some consideration, we speculated that they were a very variable A. arborescens, or A. ferox. Back at home, we consulted a Guide to
the Aloes of South Africa by Ben-Erik van Wyk and Gideon Smith where we learnt that one of the best known natural hybrids is a cross between Aloe ferox and A. arborescens. The mystery was solved and it was a first sighting for us.

We are hoping that we have located a new population of Gymnosporia elliptica (VU), but being a bit of an outpost we wait patiently for the confirmed identification of our specimens. We recorded Aristea nana (Rare) and every now and then, we come across new locations of Haworthia fasciata, Aloe micracantha (Near Threatened), Cyrtanthus obliquus (Declining) and Cussonia gamtoosensis (Rare). Recently we found two new locations for this very interesting tree species.

The Red List status of Indigofera tomentosa, which grows in the Cape St Francis area, has changed from Least Concern to Near Threatened. This is clear indication to us that we will have to keep a close eye on this species so it does not become threatened. Another interesting find in St Francis was the discovery of Moraea australis. It was classified as Thr* meaning it was thought to be threatened, but could not be assessed in time to be included in the 2009 Red List. We collected specimens and data for this species in 2010 and it is now listed as Endangered.

Honeyville received its stamp of approval and is now a private nature reserve. By the end of January 2012, we had recorded more than 430 different plant species on the farm. At the request of John Barrett, the owner, and together with prof. Richard Cowling, we had a look at some old quarries and lands on the farm to see if they could be rehabilitated. There was a suggestion to scatter Protea neriifolia seeds to aim towards having a big population that could be harvested for cut flowers but it was decided that with very little top soil it was not going to be a viable proposition and it would be better to let it continue rehabilitating itself.

Our group of juniors has also been very busy. The activities for the year included testing FOSTER’s (Friends of St Francis Nature Areas) newly laid out trail at Cape St Francis, walks in the St Francis Nature Reserve, hiking up the Sand

Work and play with the CREW team.
River in winter and Plant Monitoring Day. A visit from the Cape Town CREW team is always a hit with the juniors and in 2011 we had Martina and Zikhona here to present fabulous activities to the kids.

Our demographic monitoring of two populations of *Brunsvigia litoralis* continues and is going very well. We are very excited about this project and we hope that the data we collect will contribute to the conservation of this species in future.

Refreshing water from the Sand River.

**George Outramps**

Di Turner

At the start of 2011, we set several goals. We hoped to plot 40 rare and endangered species that were new to us. We ended the year with 70 new special plants monitored in a very hectic and busy year.

Describing all the plants and trips would take up the whole newsletter, so I have decided to concentrate on the three most memorable trips.

**Swartberg**

"Whoosh, Bang!"

A huge explosion in the front of the Buchu Bus rocked us. Clouds of steam, green water and the radiator grille flew high into the air. We came to a grinding halt about 750 m from the top of the Swartberg Pass. There was a moment’s shocked silence followed by some interesting language—totally unsuitable to the ears of someone of my advanced age! We were stranded in the middle of the road at the narrowest and most precipitous section of the Swartberg Pass. We all climbed out and Bill started to reverse her back to a cutting about 50 m back. There was plenty of verbal encouragement with Ann acting as the traffic cop, stopping any approaching cars. Eventually we managed to push her off the road, with the help of some Dutch tourists. Bill phoned Pieter (our trusty farm manager) to tow the Buchu Bus all the way back to Roelf and Jack in George, who are becoming rather too familiar with the ageing Buchu Bus. We were thankfully able to continue with our field work for the day. New species added to our list for Waboomsberg that day were *Rafnia rostrata* and *Aspalathus congesta*.

We have to convey our thanks to Oliver Purcell who fetched us in the absence of the Buchu Bus.

**Min Water in the Little Karoo**

The Outramps left for Min Water on a Tuesday in March not knowing what to expect. It exceeded our wildest dreams! The campsite, under a thick canopy of *Acacia karroo*, was exceptional. The facilities at the campsite were

Outramps enjoying the ‘strange plants’ at Min Water.
somewhat quirky but functional. While we were setting up camp, a shrike was chasing a boomslang in the canopy above us, making plenty of noise.

The rest of the day was spent walking across the veld with Louis Jordaan, who seems to know every plant on his property. Highly entertaining stories about the plants, the veld, the insects, birds and animals had us enthralled. We have always worked in the Fynbos, which has many beautiful plants. In contrast, the Karoo succulents are not particularly beautiful, just unbelievably fascinating.

The next day, Louis took us to the western boundary, which is shared with the Gamka Reserve. It was a wonderful day of spotting plants, learning their names and strange habits. In the evening Louis joined us for supper and showed us some of his magnificent slides which made the fieldtrip much more memorable.

**Grootvadersbosch**

It was fitting that the last plant-hunting trip of the year was the most successful of 2011. This is based on the amount of ‘rares’ found that are new to the Outramps since their reincarnation in 2004. The Group was disbanded in 2002, at the end of the Protea Atlas Project. In 2004, I was asked to form a CREW group and the rest is history.

Grootvadersbosch has to be one of the most beautiful places on earth. The mountain scenery is majestic and the plants are awesome. The campsite near the office is very comfortable. Stunning mountain paths lead to hidden valleys with changing microclimates that have a wide diversity of plants growing there. Despite the presence of a number of geriatrics, there were enough ‘young folk’ to give us hope for the future.

Leaving George at the crack of dawn we arrived at about 10:00 on Wednesday, despite losing an indicator light that got sucked out, as a large truck whizzed past our Buchu Bus. After setting up camp, we met Twakkie and Molly and did the Grysbok Circle with them. We know Twakkie from his stay at the Outeniqua Reserve and it was good to meet Molly who is full of enthusiasm and looks to have a bright future in conservation.

Next morning, we set off on the Saagkuilkloof track heading for the Helderberg shelters below Grootberg. It was a very hot day, which didn’t make the hike any easier. We were very pleased to find water towards the end of the day. Bill wanted to spend the night on the *Protea grandiceps* flats but fortunately reason prevailed. We had at least 5 mm of rain in the night and despite having bruised hips from the concrete floor, at least we were dry. An early start the next day had us on our way back to the campsite via Loerklip. As we got to the ridge, the mist came down and we had a very wet descent for part of the way with minimal visibility. We were thrilled to find three plants of *Acrolophia lunata* on the way down and fields of *Watsonia fourcadei* had whole slopes turning pink. We saw one *Spatalla nubicola* and some interesting *Erica* species.

The next morning we drove north of Korente Dam to a kloof on the southern side of Sleeping Beauty below the Rooiwaterspruit track. Bill unerringly led us to the spot and after three years of searching, we eventually found *Erica ixanthera*.

We look forward to another exciting year, working with the rangers and exploring the stunning mountains and coast all around us. Thanks to the team for their commitment and enthusiasm in 2011.

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**Erica ixanthera**, finally found!
Bruce and Daphne Beyers (Bruce is a Haworthia expert). Here we summarise the areas we surveyed this year and the highlights of what we found.

**Schietpad–Napier**

We visited this under-explored site late in the season (November) and were amazed with how much was still going on in the renosterveld. We found an interesting population of a pink flowering Aspalathus, the identification of which is still to be confirmed by Charlie Stirton.

**Plaatjieskraal and Haarwegskloof**

As usual, these sites were full of rare, special and even some surprising species. The list for Plaatjieskraal included 12 special species, namely Gibbaeum haaglenii, Elegia verrauxii, Polhillia pallens, Mesembryanthemum longistylum, Brownanthus fraternus, Aspalathus quartzicola, Ficinia gordongrayae, Otholobium curtisiae, Otholobium pungens, Leucadendron coriaceum, Acrodon diminutus and Elegia recta. For Haarwegskloof, we found the typical quartz specials as listed for Plaatjieskraal, as well as Polhillia curtisiae (currently being described as a new species, after this population was previously erroneously indentified as P. connata), Peucedanum striatum, Xipotheca guthriei and Acmadenia macropetala.

Aspalathus quartzicola is a species currently being described by well-known legume expert and University of Cape Town (UCT) research associate, Charlie Stirton, as it was wrongly identified as A. incompta in the past. Ficinia gordongrayae is a new species, currently being described by Muthama Muasya (sedge expert at UCT). On follow-up visits with Charlie, we found a new species of Hesperantha—a beautiful, tiny pink flower with very long stamens!

**Fonteinskloof**

After a good rest from some heavy grazing the previous year, this site was once again filled with many spectacular renosterveld bulbs. After a long search, and much to our relief, we finally managed to find the new Romulea pilosa (discovered by Cameron and Rhoda McMaster in 2010) in seed again.

**Suurbraak commonage area**

Odette Curtis was approached by Alan Jeftha, one of a group of five BEE farmers (Suurbraak Grain Farmers Cooperative) making use of the Suurbraak commonage lands for agriculture. Alan requested that a management plan be drawn up, providing guidelines as to how the farmers should use their renosterveld. This led to several CREW visits to the area (>1 500 ha of veld, mostly Swellendam Silcrete Fynbos, with some Eastern Rûens Shale Renosterveld) and this proved to be a treasure chest of rare and beautiful plants. We found Polhillia cf. pallens (also likely to be described as new) in the renosterveld as well as Geissorhiza foliosa, Elegia verrauxii, Otholobium pungens, Aloe brevilolia, Haworthia mutica, Protea decurrens and Erica filamentos in the Swellendam Silcrete Fynbos.

The Polhillia is exciting because, although specimens of this species are curated in the herbarium as P. pallens, it is in fact very different to the P. pallens from further south. Therefore, it is very likely that Charlie Stirton will be describing this species as new. If this is the case, we will involve the local community in naming the plant. It is hoped that the relationship between the botanical and conservation community and the Suurbraak community (particularly its farmers), will grow. Plans are afoot to develop hiking trails, alien clearing initiatives, etc. in the commonage areas and surrounds, hopefully with significant long-term benefits to the community and the environment.

A new species of Hesperantha

One of the new species to be named after Odette Curtis.

Aspalathus quartzicola, a species that will be described by Charlie Stirton.
Kelkiewyn wetland

This is a relatively undisturbed vlei in the Swellendam Silcrete Fynbos near Buffeljags that is under threat of being polluted by agricultural development. The diversity of plants alone makes it an ecosystem worthy of protecting. Some of the special plants that occur there are Babiana patula (declining), Haworthia mirabilis (CR) and Serruria leipoldtii (NT).

Barrydale and the Langeberg

At last a climb to 900 m on the farm Sandrivier led us to a northwest facing overhang in which we found Erica turneri (VU) to add to the excellent collection of plants that Jill Blignaut has assembled for the Barrydale and Suurbraak section of the Langeberg.

After the late rains, patches of what we believe is Wurmbea compacta (VU) were evident in several localities. There was also a stunning display of Drosanthemum bicolor, D. speciosum and D. splendens and much debate about the identification of D. micans (EN). The population of Bartholina etheliae, found in arid renosterveld on the farm Heldestroom, is flourishing in association with Holothrix seculanda and Haworthia arachnoidea.

Kogelberg

Amida Johns

The Kogelberg’s CREW initiation year focused on the spring and summer post-fire flowering plants of the coastal plains, eastwards of Kleinmond towards the Bot River Vlei.

The vegetation of this area has been classified as a mosaic of Hangklip Sand Fynbos, Kogelberg Sandstone Fynbos and some Western Rûens Shale Renosterveld, which are all threatened ecosystem types.

The five-man strong group began their monthly field days with a look at the formally conserved Rooisand Reserve. The two dwarf Moraea species, M. tricolor and M. versicolor were a delight to all as was an intriguing silver leaf resprouter that soon gave bright yellow flowers. We were delighted to find out that this was Xiphotheca reflexa, listed as Endangered.

The succulent Acrodon subulatus was found on the shale areas adjacent to the vlei amidst a show of bulbous flowers. On more sandy areas ‘special’ species recorded included Lachenalia lactosa, Geissorhiza tenella, Disa atrorubens, Limonium anthericoidea and the conspicuous and elegant leaves of Cyrtanthus carneus. The more rocky lowland mountainsides displayed a few scattered flowers of Tritoniopsis caledonensis.

Of particular interest were the ferricrete outcrops that surfaced as islands in the sands, much to Ismail’s delight. The indicative and aptly named Cliffortia ferricola (Critically Endangered) was seen growing on these mounds as well as the less habitat discerning Lachenalia peersii.

Well done to all for their good humoured perseverance.
The new Hottentots Holland CREW branch had their first meeting on 18 June 2011 in the Helderberg Nature Reserve. During this meeting, Cecilia Wolmarans was nominated and elected as the champion of the group.

Ismail gave an overview of the CREW programme and explained what is required to be involved as a volunteer. He then immediately started training us on the different flower parts of the Fabaceae family. Thereafter, we went for a quick walk in the reserve. The veld looked very promising after the recent fire in April and we were looking forward to discovering fire ephemerals during spring.

In August, we visited the Lourensford Estate, where two areas were targeted. At our first stop, we identified 25 species, one of which was Serruria kraussii, listed as Vulnerable. We moved on to Landdroskloof, where we identified another 18 species. Two different ground growing proteas were identified, Protea lorea and Protea acaulos. Finding a species in the Orchidaceae family is always wonderful, and on this occasion, we found Disperis capensis, which was an absolute highlight of the day.

In September, we returned to Helderberg Nature Reserve, where a sea of Spiloxenes and Geissorhizas surrounded us at times. Alas, we did not find any fire ephemerals on this particular day, but we did find Gladiolus liliaceus—brown during the day and pink at night. We also found Pterygodium catholicum and Satyrium cordifolium.

In October, we visited the Vergelegen Estate. Prof. Charles Stirton, who shared with us some of his vast knowledge of the Fabaceae family, joined us and as a result, we could identify almost 100 species. Vergelegen has been busy with an alien clearing program for a number of years, and the veld has recovered beautifully after the fires in 2009. Once again, we explored the Landdroskloof area, where we found the beautiful Tritoniopsis parviflora, which flowers profusely after fires as well as Serruria kraussii (Vulnerable), which we also found on Lourensford. We could have spent the whole day in the kloof, but we started heading back in a circular route. The highlight of the day was finding Leucospermum guenzii, listed as Endangered. By the end of the day, we realised that we have only scratched the surface on Vergelegen, and we vowed to be back in November. Unfortunately we had extremely bad weather on our return trip, and could not add any species to our list. I have no doubt that Vergelegen will deliver many more specials in future.

We have learnt a lot during the past couple of months, and we thank Ismail and everyone else working with him, for the effort they put into organising the courses that they make available to us. It is great to know that we have the support we need and we look forward to a year of new discoveries!
Harmony Flats Working Group

Ismail Ebrahim

This year was an exceptionally busy and successful one for the Harmony Flats Nature Reserve. The most exciting development is that construction of the new offices and Environmental Education Centre started in 2011. After a very lengthy process of getting approval and funding, this dream is finally becoming a reality.

The Harmony Flats Working Group is still very much involved in activities and a number of new partnerships will strengthen civil society engagement at the reserve. The reserve manager has now established relationships with a community youth group called TAG Changers and the Black Association for the Agricultural sector based in Casablanca, Strand.

A new ‘Friends of the Gordon’s Bay Environment’ group, soon to be affiliated to Wildlife and Environment Society of South Africa (WESSA), was established and although the group is still in its infancy, it will consolidate the effort and contributions volunteers make to the reserve.

There were a number of fantastic events during 2011. The reserve conducted a successful wetlands week, biodiversity week and environmental holiday programmes involving over 650 learners. In addition to the activities for the youth, there were two wonderful activities involving adults. The reserve hosted its first Earth Hour event as well a series of spring guided walks. About 50 people attended these events and through charging a nominal fee of R10.00 some funds were raised for conducting environmental activities with school learners visiting the reserve.

The reserve staff, Friends group and community partners look forward to another blockbuster year of activities and strong support from all those involved at the reserve.

Friends of Tygerberg Hills (FOTH)

Hedi Stummer

The past year was as busy as ever! CREW Tygerberg had their usual Friday outing every week, while during spring, additional outings had to be slotted in to cover all the necessary areas.

We worked on 18 sites namely: Blaauwberg Nature Reserve (NR), Mamre NR, Dassenberg Farm, Kanonkop, Nirvana, Tydstroom and Witzands Aquifer NR all in the West Coast area; Milnerton Race Course and Rietvlei NR closer to home; Haasendal Farm in Kuils River; Hercules Pilaar, Briers Louw NR and Klipheuwel Telkom site all near Paarl; Paarl Mountain NR; Uitkamp Wetlands and Botterbloem Park in the Durbanville area. Then of course, we surveyed our own Tygerberg with its new burn site on a monthly basis. We also visited Jack Muller Park with its wonderful pockets of indigenous vegetation in the immediate vicinity.

Briers Louw NR had a controlled burn at the end of 2010, so FOTH CREW did a monthly survey of the re-emerging vegetation. New species of conservation concern added to our list were *Moraea angulata* (CR), *Spiloxene minuta* (EN), *Eriospermum flavum* (Rare),...
Geissorhiza purpureolutea (VU), Moraea tricolor (EN) as well as many other LC species.

Tygerberg Hill also had a controlled fire on the western slope in March 2011 and we came regularly to check what was new. Aristea spiralis, Geissorhiza ovata, Moraea fugacissima and Pterygodium caffrum, amongst others, were added to our already extensive plant checklist. Oxalis strigosa (EN) was found coming up abundantly on the burnt slopes. We checked on the population of Lachenalia liliflora (EN) and found abundant plants, however, they were very small and almost unnoticeable compared to the original size after the burn several years ago.

Uitkamp Wetlands 3 (Renosterveld site) was burnt in February 2011. Amazing Aristea lugens (EN) and Podalyria cf. argentea (EN) were discovered. Student Leigh Wootton diligently monitored this site.

At Mamre and Nirvana, we discovered Othonna linearifolia (DDD) and collected specimens for the Compton Herbarium because it was only known from a specimen in a European herbarium.

At Rietvlei NR (newly added to our schedule), we found Pseudalthenia aschersoniana (CR), last seen in 1957. This was also found at Milnerton Racecourse along with Cotula filifolia (CR). Here the population of Hermannia procumbens subsp. procumbens (CR) was doing very well despite the ground being waterlogged for three months due to bad drainage.

We confirmed the suspected population of Babiana secunda (CR) at the Klipheuwel Telkom site in October and also found Cliffordia acockii (CR), Otholobium bolusii (NT), Aspalathus varians (EN) and Gnidia parvula (DDD). Our last outing in the year was to Paarl Mountain NR for demographic monitoring of Argyrolobium angustissimum (EN). We found all the plants numbered the previous year as well as a good many extras. Its current threat is its proximity to the road verge and thus in danger of being cut away by the grader.

Many more pressed specimens have been added by our enthusiastic CREW team to our own Herbarium collection, overseen by Gurli Armbruster, at the Kristo Pienaar Centre.
Many thanks to the stalwarts of Tygerberg CREW especially Gurli, Sandra, Melda, Veronica, Ursula and Hanna; new members Keith and Mirec; Gail monitoring Rietvlei NR; Penny of Tygerberg NR for her continued support; Ismail and the CREW staff at Kirstenbosch and the very valuable input by our scientists and the Compton Herbarium.

Darling Wildflower Society

Jacques van der Merwe

Darling is a small town on the Cape West Coast, about an hour from Cape Town. The town is best known for its wine and theatrical attraction, Evita se Perron, where tannie Evita Bezuidenhout struts her/his stuff on stage every weekend.

Few know about the Darling Flora Project, established by the Darling Wildflower Society (DWS), CapeNature and the Cape West Coast Biosphere Reserve (CWCBR) in 2002.

The project is run by the DWS, which is one of the oldest conservation societies in the country (established 1915) and is responsible for the management of Darling’s three municipal nature reserves, establish and managing the Darling Herbarium and is currently in the process of building an environmental education centre. Funding is generated by the Darling Wildflower Show, held annually on the third weekend of September and attracting around 6 000 people.

Getting back to 2011, the Darling CREW group took advantage of the workshops hosted by SANBI the past year. The Oxalis identification course at Stellenbosch University on 14 July was interesting and a real eye-opener for those who attended. There was also an Iridaceae identification course presented by dr John Manning at Kirstenbosch Research Centre on 29 September, again reminding us of how little we really do know about one of the largest families in our area.

iSpot: Southern Africa (http://za.ispot.org.uk) is currently being developed and tested by SANBI. The website was established to provide nature lovers with a platform where they can share their pictures and observations in nature (be it a plant, animal, fish, invertebrate or fungi) onto the website for experts to identify and provide additional information on that particular species—almost like a Facebook for nature! Some Darling CREW members added observations, helped with a few identifications and joined in on the first iSpot Bioblitz (iSpot field trip) to Riverlands Nature Reserve outside of Malmesbury. After the recent burn in February, the Riverlands field trip was packed with specials and interesting observations from the reserve with the highest

Geissorhiza purpureo-lutea.

Darling CREW group after a lovely day in the field.
number of rare and endangered species per square area for any reserve in the country!

Cape West Coast and Swartland Tourism approached us again this year looking for a speaker to give a talk on conservation and flagship flower species of the West Coast flower season. About 100 tourism officials and tour operators attended the West Coast Flower Training Seminar on 21 July at Draaihoek Lodge, Dwarskersbos. The hour-long talk covered some basic conservation principles and ethics, some ecological concepts and then focused on identification and interesting facts on twenty colourful, flagship flower species tourists are likely to encounter during the flower season.

In September, a beautiful buchu was observed in the Burgherspost Wine Estate Conservation Area in Darling’s critically endangered Swartland Granite Renosterveld and had specialists scratching their heads trying to figure out the species. After much deliberation, dr. Terry Trinder-Smith at the Bolus Herbarium identified it as *Adenandra marginata* subsp. *serpillaceae* and noted that even though it is a common species further north, this particular specimen was only the second to be collected from the Darling area and of a much more threatened, graceful and less robust form. Anthony Hitchcock (Rutaceae specialist) and Louise Nurrish (Proteaceae specialist) from SANBI came to Burgherspost in Darling to collect specimens for the Millennium Seed Bank Project. They also collected cuttings from various rare and endangered species (not just from the Renosterveld, but also from the equally threatened Atlantis Sand Fynbos) for propagation and rehabilitation of the critically endangered vegetation types of the Darling area.

The collected specimens will be used as ‘framework’ species, which establish easily under ‘unnatural’ conditions, gradually improving the condition of the soils to allow the more sensitive species to get a foothold.

Kirstenbosch is currently propagating the collected species and the plants will be brought back to Darling in autumn. They will be replanted in the area set aside for rehabilitation at Burgherspost. A section of 13 ha consisting of Sand Fynbos and seasonal wetland area were fenced off from grazing inside the conservation area during December and will be used as a pilot rehabilitation site. In the meanwhile, all aliens are being cleared from the site to prepare it for replanting. Seeds from various other species have also been collected, smoked and will be sown after the initial planting as the first rain starts to fall.

Other interesting species uncovered in the same area included *Erica ferrea* (Endangered), *Disa barbata* (Critically Endangered) and *Babiana pygmaea* (Critically Endangered). After adding the new discoveries to the already long Darling CREW specials list, the list now covers more than 180 rare or endangered species.

Finally, Helene Preston, one of the founding CREW members, primary organiser of field trips and most experienced botanist decided to retire at the end of 2011. It has only been a few months and already we are feeling her absence in the group! From the rest of the Darling CREW members, we would all like to thank Helene for the years of dedicated service and hope that she will not forget about us and that we can still, from time to time, make use of her extensive knowledge.

![iSpot Bioblitz at Riverlands NR, an interesting case of fasciation in *Felicia tenella*.](image1)

![Criticaly Endangered *Diastella proteoides*.](image2)
2011 het vir ons in Jacobsbaai ‘n baie groot bewarings-geskenk opgelewer—die Wêreld Natuur Fonds (in Engels bekend as die World Wildlife Fund, WWF) het ‘n stuk eiendom, ongeveer 180 ha groot, aan-grensend aan die dorp gekoop wat voorts deur die Weskus Biosfeer Reservaat bestuur sal word.

Die WWF reservaat bestaan hoofsaaklik uit Saldanha Kalkstrandveld en Saldanha Strandveld en feitlik al ons spesiale en bedreigde plantspiesies kom hier voor. Gevolglik is die stuk grond kosbaar vir bewaring en ons sal in die toekoms gereeld die eiendom bezoek vir moontlike ontdekings. Die reservaat is ook minder as 1 km vanaf die kus geleë en het ‘n pragtige uitsig op die see. Die bonus is dat dit 500 m van my huis af is en dat ek nou ‘n natuurreservaat op my voorstoep het!

Verder, soos baie van julle weet, is dit vir ons amateur plantkundiges moeilik om ‘n algemene kennis van groot families (veral die Fabaceae) en groot genera op te bou. Dit is daarom so ‘n spesiale geleentheid as ‘n gesogte plantkundige by ons kom kyk na eiesoortige spesies van die omgewing. CREW het gereël dat prof. Charlie Stirton, voorheen adjunk-direkteur van die Kew Botaniese Tuin in Londen, by ons kom kyk en help met onopgeloste name van eertjie-plante. Dit was ‘n voorreg om die dag saam met Charlie in die veld te stap en te sien hoe deeglik die inligting van elke plant versamel en aangeteken word—dan wys hy ook nog vir jou watter eierskappe belangrik is vir sekere genera en watter eierskappe noukeurig met ‘n kamera afgeneem moet word. Die bonus is dat ek van elke spesie wat ons in die veld gesien het later ‘n foto en ook ‘n naam gekry het. Skaars plante wat ons op die dag gesien het sluit in Otholobium venustum, Aspalathus recurva en Psoralea repens. Laasgenoemde is nie so skaars nie, maar dit is volgens Charlie ‘n nuwe lokalisering vir die spesie (die meest noordlike) asook die grootste populasie. Ons Weskus-mense sê baie dankie, Charlie!

In die afgelope paar jaar streek Jacobsbaai ook ‘n botaniese skat of twee weg en dus was ‘n verdere hoogtepunt aan die Weskus vir ons die ontdekking van ‘n nuwe spesie in 2011. Oom Koos het die plantjie vroeg in die jaar versigtig aan Vathiswa en Martina oorhandig en dr. Steven Boatwright, van die Compton Herbarium in Kirstenbosch, het dit as nuut verklaar. Die baie klein, nuwe Trachyandra spesie kom op ‘n granietbank voor wat meestal uit Saldanha Kalk-Strandveld bestaan. Die klein plantjie blom in September en die blommetjies is slegs vir een dag oop, vanaf 16:00 tot sononder. Ons hoop om in 2012 nog ‘n populasie van hierdie skaam plantspiesie te vind!

English summary
In 2011 the WWF (World Wildlife Fund) presented a great gift to Jacobsbaai by purchasing a 180 ha piece of land with very special vegetation and many threatened species occurring on it. The West Coast Biosphere Reserve will manage the land.

One of the challenges for amateur botanists is building a general knowledge and competency in identifying species in big plant families (especially Fabaceae), so it is always a great learning opportunity when a specialist visits the area. This year prof. Charlie Stirton, ex-Assistant Director of...
Kew Botanical Garden in London, paid us a visit to assist with identifying the Fabaceae occurring on our area. It was a privilege to spend the day with Charlie in the field and to observe his method of recording information about the plants and taking photos of the features required to make an identification using photos. Special species recorded on the day were *Otholobium venustum*, *Aspalathus recurva* and *Psoralea repens*. The latter was listed as ‘Near Threatened’ but according to Charlie, this was a new distribution record for the species. We would like to thank Charlie for visiting us.

Another major highlight of the year was the discovery of a new species. Koos Claassens submitted a specimen to the Compton Herbarium where dr. Stephen Boatwright confirmed that the plant was a new species. The small *Trachyandra* species occurs on the granite boulders and flowers in September. The flowers only open from 16:00 to sunset and only last for one day. We hope that we find more populations of this shy species in 2012.

### Acronyms

- **BEE**—Black Economic Empowerment
- **BotSoc.**—Botanical Society of South Africa
- **CFR**—Cape Floristic region
- **CR**—Critically Endangered
- **CR PE**—Critically Endangered, Possibly Extinct
- **CREW**—Custodians of Rare and Endangered Wildflowers
- **DENC**—Northern Cape Department of Environment and Nature Conservation
- **EDRR**—Early Detection and Rapid Response to Invasive Alien Plants
- **EKZNW**—Ezemvelo KwaZulu-Natal Wildlife
- **EMAPI**—Ecology and Management of Alien Plant Invasions
- **EN**—Endangered
- **KZN**—KwaZulu-Natal
- **MoU**—Memorandum of Understanding
- **MPTA**—Mpumalanga Parks and Tourism Agency
- **NGO**—Non-Governmental Organisation
- **NT**—Near Threatened
- **SAAB**—South African Association of Botanists
- **SANBI**—South African National Biodiversity Institute
- **SCC**—Species of Conservation Concern
- **UCT**—University of Cape Town
- **UKZN**—University of KwaZulu-Natal
- **VU**—Vulnerable
- **WWF**—World Wildlife Fund

### Isabel Johnson

**CREW KZN mentor**

Suvarna Parbhoo

During Isabel’s tenure as CREW manager: KwaZulu-Natal (KZN) Node, she worked hard towards making CREW come alive in the province.

Because of her knowledge and guidance, the CREW volunteers and I have a much deeper understanding of the KZN flora. We have learnt so much from Isabel that it is difficult to explain how grateful we are. Isabel, thank you for openly sharing your extensive knowledge with the CREW volunteers. You patiently listen to the many questions and answered accordingly, never showing signs of frustration. The way you motivate people to give their best is remarkable. You truly lead by example.

I have mixed feelings about taking over from Isabel as CREW manager for KZN. On one hand, it is daunting for me to run the project on my own but on the other, I am...
feeling positive about Isabel’s new role and how it will contribute to expanding the reach of the CREW programme. Isabel, you have made such a significant contribution to CREW, and we are eternally grateful. The extended CREW team and I would like to say thank you!

This is a time to look back with admiration and look forward with anticipation. May your next adventure as KZN Biodiversity Stewardship extension facilitator be fulfilling and successful. We would also like to wish you the best of luck with the final stretch of your PhD thesis.

I would like to end with a message of appreciation for Isabel’s considerable input into KZN CREW from the Boston CREW group, “Isabel has spent hours of her time, without considering her personal life in many instances, promoting the growth of KZN CREW, caring for and nurturing it despite many other things on her mind and many other responsibilities to deal with. Isabel has answered our questions individually, however simple they must have seemed to her, with helpfulness and thoroughness. Our own progress in amateur botany has been greatly assisted by her dedication to this conservation project. Thank you, Isabel!”

Isabel Johnson looking at Gerbera aurantiaca.

How the CREW team spirit contributed to my personal development

Vathiswa Zikishe

I cannot believe how long it has taken me to write this kind of article. It should have been written a long time ago, but it just didn’t cross my mind at the time. I have so much to share here, as well as so many people to express my gratitude to, so here it goes!

In September 2007, I joined the CREW team as a Project Assistant. Prior to that, I worked for CapeNature at Outeniqua Nature Reserve in George as a Quality Controller for the Working for Water Programme. During my time at Outeniqua, I performed a diverse range of duties and activities, ranging from environmental education, to threatened plant species monitoring with the Outramps CREW Group from that area. Plant monitoring activity appealed to me, and I developed a passion for plants and an eagerness to learn. As a result, I was often on CREW outings with the Outramps, which contributed to my experience and skills to bag the CREW project assistant position. My expression of gratitude goes to the Outramps for teaching me all about plant identification and Lorraine McGibbon who is still my mentor, friend, and continues to encourage me.

Usuku lwam lokuqala emsebenzini (my first day at work!)

Ooh, everything around me felt new, and it was a complete change of scenery. It was my first time in Cape Town. Some people get nervous on their first day at work but for me it was a case of mixed feelings, with curiosity the most apparent! I was excited to take on this new challenge. My start was not very smooth as anyone might imagine. I had so much to learn and the pressure was on, as it was the beginning of the field season. My first trip was on a Sunday afternoon to Fairfield near Napier, which is a spectacular site with lots of ‘specials’. I looked around and everyone had something to do, some were down on their knees photographing the plants, some were looking at the characters to identify species and Ismail (my supervisor) had a clipboard and he was called left and right to identify plants. There I was standing, completely overwhelmed by everything. Eventually I found myself asking for a clipboard to fill in the data sheet. That was the start of my learning curve. In the beginning I could not spell the names correctly or pronounce
the Latin names but I had to learn quickly because there were many specials to record. My plan of action was to write them down in my own way and then check them later in a field guide. This strategy worked well for me and helped me learn the plant names much faster. That was how my day ended, with lots of homework and plant pressing to do. The learning process continued and I made sure that I built up my knowledge on a daily basis as we were in the field almost every day. When not in the field I was doing spell checks as well as data sheets, filing, and others duties like data capturing. The amazing thing about this kind of work is the learning never stops and I am still as excited and committed to learn as I was on the first day.

**A working team is an inspiration**

The CREW team is the exact definition of ‘team’: a collection of individuals who have gathered to achieve the same goal. CREW has a diverse range of duties and activities to be performed. These activities and duties are clearly outlined and very stimulating. In order for the team to achieve its common goal, open communication, trust and working together are key ingredients for making a successful team. I was extremely inspired by the dedication the CREW team members have towards their work. When you enter the office, you see everyone focused on their work and always willing to share their knowledge and experience. One of the most important factors that influenced my development was the trust and support from my supervisors. I would be encouraged to take on challenging projects and try new ways of doing things. This was critical to developing my ‘can do’ attitude. The major lesson I learnt was that without willingness to develop myself, I would not be where I am now. Learning is a two way process. The teacher has to be willing to impart with their knowledge and the learner must be receptive and willing to use the knowledge gained. I have achieved so much since 2007 with my most important achievements independency, confidence and a sense of pride in the work completed with CREW thus far.

**Acknowledgements**

I can never thank everyone enough, from our office volunteers, Ky Pulvermacher and Margaret Kahle, who were the first volunteers I had to build a working relationship with, the Compton Herbarium staff for their patience, especially in the beginning when I was struggling, and to other volunteers from all the CREW groups, for sharing their botanical expertise. To each and every one of you, I want to say these few words, “you never know when a little word or something you do may open up the windows of a mind that seeks the light.” So keep up the good work!

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**CREW through the eyes of an intern**

Martina Treurnicht

In April 2011, the CREW team in Cape Town welcomed me as an intern recruited through the Department of Science and Technology and National Research Foundation’s collaborative graduate recruitment programme. My first day was at the very exciting 2011 Cape Floristic Region (CFR) Workshop held in Betty’s Bay and provided an excellent opportunity to familiarise myself with CREW and all the volunteers! I went to school in Durbanville and completed my university qualifications (BSc, MSc) at Stellenbosch University in Conservation Ecology. Other than my academic qualifications, I always relished the outdoors, hiking, horse riding and family holidays throughout beautiful southern Africa. My Masters research, which was completed in 2010, spanned social and ecological aspects of wildflower farming on the Agulhas Plain. The sustainable management of privately owned fynbos was emphasised throughout my thesis. Additionally, I worked on a short-term project that reported on fynbos species discoveries (a time-series analysis) in the Cape Floristic Region. From this, my interest in exploring and conserving the unique plant diversity of the Cape became my passion and I found it easy to settle in at CREW.

During my time at CREW, I have supported the project manager with planning and coordinating field trips, planned and organised lectures with university students, coordinated the demographic monitoring research, developed identification guides for the new volunteer groups, provided landholder feedback after site visits, and assisted with environmental education activities. I am committed to and enthusiastic about environmental concerns and determined to inspire others’ interest for the environment. Clearly, being a member of the CREW team meant that I could heartily express my commitment to the environment and share this with many like-minded folks. I would like to thank all the staff and volunteers of CREW for an adventurous year in the field in which I learned a lot, and I wish CREW many more remarkable botanical finds. I could not have wished for a better kick-off to my environmental career!
I am Lerato Hoveka, a CREW Cape Floristic Region (CFR) intern from Limpopo Province, who majored in Botany and Zoology at the University of Limpopo.

My Honours project entailed the micro-propagation of two critically endangered and endemic succulents for ex situ conservation. This was aimed at developing a propagation protocol for horticulture in an effort to make the plants readily available, thus reducing the pressure placed on wild populations by poachers. The ultimate plan was to reintroduce the plants into their natural habitats to augment existing and declining populations.

When my honours year ended, it came to mind that I might have been a bit too ambitious to propagate a plant and reintroduce it into the wild in one year. Nevertheless, I had successfully managed to propagate the plants. Further research was now needed to establish how the cloned plants would respond to environmental conditions and whether or not they would be a threat to the wild populations. Augmenting individuals of a threatened species is one way of conserving a species but it does not reduce the pressure placed on the plant by anthropogenic factors.

I decided to apply to SANBI’s Threatened Species Programme to have a better understanding of the conservation of threatened plants. I was placed with CREW, where I have learnt the importance of engaging civil society groups and landowners in the conservation of threatened plants. With CREW, I have learnt how important it is to monitor rare and endangered plants regularly and to go out into the field to search for those species that are data deficient and highly threatened to prevent extinctions. Having worked in biodiversity management, I learnt how important the data that CREW collects is for biodiversity planning, policy development and Environmental Impact Assessments.

One of the highlights for me was being invited to be part of a summer school programme in Nieuwoudtville where the CREW team had to educate the children about climate change and energy saving practices.

When I return home, I plan to use the experience that I have obtained with CREW to conserve threatened plants. The majestic world of plants shall keep me passionate about biodiversity conservation and I will always remain a CREW volunteer.

CREW Red Listing Intern: Pretoria

Anisha Dayaram

How exciting these last nine months of my NRF internship at SANBI in Pretoria have been.

As we are all aware, the Highveld can be ranked second only to the moon in terms of a lack of visible floral diversity during winter, therefore, I was elated when I was given the opportunity to travel to the Western Cape to experience a bit of CREW fieldwork there. It was my first experience of winter in the Cape region as well as my first opportunity to meet some of the Cape CREW members and volunteers. I’m afraid that I was as bad as a tourist in a curio store and must have had eyes rolling from the more experienced CREW members as I took photo after photo of beautiful, colourful, brightly contrasting and yet completely common flowers and plants. Included are a few of these amazing flowers as well as a cryptically hidden photo of the Johannesburg veld I left behind so I can justify my excitement!

Some of the other tasks I had the opportunity to work on was geo-referencing the localities of the summer rainfall species and helping a little with the Red List website. I also met some of my favourite volunteers at the summer rainfall workshop at Buffelskloof and it is always a pleasure to see everyone well and as enthusiastic as ever. I also got to know the CREW-SANBI teams from Cape Town, Johannesburg and KwaZulu-Natal and I have yet to meet a group of people who are as dedicated and effective at achieving conservation targets with the minimal resources they are afforded. If we could find the source of the passion they run on,
I think we have found our green fuel of the future. I also got to experience some of the struggles and bureaucracy which is holding back effective conservation and it disappointed me. However, I recently read a *New Scientist* article that said ecologists are too melodramatic, downplay our successes, and put too much weight on negative issues, thinking that they will garner greater interest from the public, while it is instead counterproductive. Therefore, I think that CREW should be proud of the fact that they inspire positivity and whenever I have been around them, I have felt my own passion for conservation reignited.

Some amazing Fynbos flowers with a cryptically hidden image of the Johannesburg veld—see if you can spot it!

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**Congratulations on the birth of your daughter, Tilla**

Suvarna Parbhoo

National Manager of the CREW Programme, Domitilla Raimondo, gave birth to beautiful baby Thalia just two weeks after the CREW summer rainfall workshop.

Thalia is named after the ancient Greek deity of plants and *Thalia* is also a genus of the family Araceae, so an appropriate name for the latest addition to the CREW family. We wish you and your family all the best in health, happiness and a long journey full of learning, patience, support and laughter—all the ingredients every happy family needs sprinkled with lots of love.

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