What an incredible year 2007 has been for the CREW programme! Both the summer and winter rainfall areas have experienced good rains with no shortage of interesting species flowering during Spring. There has been a palpable shift in the way the project is operating — it seems to have gained a momentum that is unstoppable. There are a whole host of new groups operating in KZN, in Mpumalanga, in the Fynbos and in Namaqualand. We are receiving excellent data from a range of volunteer groups with so many exciting discoveries and important monitoring of critically endangered populations many of which are detailed in the groups’ articles in this issue.

We have a number of new staff in the CREW programme. Isabel Johnson officially took on the position of CREW KZN manager in May 2007. She and Desiree Marimuthoo (CREW KZN co-ordinator who started with CREW in March have made a great start to getting CREW set-up and working in KZN. We also have a new CREW assistant in Cape Town Vatiswa Zikishe, who came highly recommended from the Outramps in George. Vatiswa is like a beam of sunshine for our programme, she is highly efficient and has reorganised CREW’s field trip sampling and specimens processing system. Rupert Koopman, who volunteered with CREW for 4 years, has now joined our team and he is focusing specifically on supporting Cape Nature with the epic task of conserving the Fynbos flora. Rupert has been incredibly busy...
Over the past 6 months there have been some significant changes made to the CREW programme’s orientation within SANBI. During July Wendy Foden, head of the Threatened Species Programme, resigned. As a result I have taken on the responsibility for all threatened plant issues for the country. This means that our team now consists of both CREW personnel and Red List scientists.

CREW has become a primary component of a broader threatened plant programme that focuses on the following areas:

1. Conducting Red list assessments for all of South Africa’s indigenous plant species
2. Monitoring the status of threatened plant populations in the wild via the Custodians of Rare and Endangered Wildflowers civil society volunteer programme
3. Providing threatened plant locality data to land use decision makers to minimise further loss of threatened plant populations
4. Informing provincial, national and international policy development for the conservation of threatened plant species
5. Input into plant recovery programmes conducted by SANBI’s Botanical Gardens and by Provincial conservation agencies

The threatened plant programme runs in parallel to SANBI’s threatened species programme that focuses on co-ordinating the atlasing and red listing of animal groups especially those that have not previously been studied. Currently SANBI is working in collaboration with the Animal Demography Unit based at the University of cape Town as well as with a range of other organisations and societies on a Reptile atlas, an Arachnid atlas, a Butterfly atlas and a Bird Atlas. All of these projects depend on volunteer participation and have web-based virtual museums where digital photos can be submitted with GPS coordinates to contribute to knowledge of species distributions. As CREW volunteers tend to access many unexplored areas while looking for special plants we would like to ask if you would consider also contributing to these other programmes. In this edition there are articles from the Butterfly, Reptile and Arachnid projects to provide you with further information on their activities and how to submit your contributions.

The South African Red List is almost complete….. you may be experiencing déjà vu - have I not been saying this for the past year? Well the size of the task was vastly underestimated but we are really nearly done now with only a few Succulent Karoo and Limpopo species receiving final checks. The statistics become ever more alarming, we now have over 2087 threatened species in South Africa up from 623 in 1997 a 235% increase! All these species require monitoring as do the 1354 Data Deficient species. South Africa is quite unique in the very high numbers of threatened plants we have – once we submit our red list to the international team (based in Cambridge) we will double the number of threatened plants listed globally. All of you as volunteers are helping us by providing much needed information on the status of threatened plant populations; contributing to conserving this sizable array of threatened species something we could most certainly not do without your help!

We hope you all enjoy a well deserved Christmas break. Many thanks for all the incredible work you have done this year!

Domitilla Raimondo
Threatened Plant Programme Manager
The CREW CFR team is slowly starting to wind down after an absolutely wonderful season in the field. This year our field trips were very successful, visited some incredibly special places and found awesome plants.

We managed to conduct 22 C-team field trips this season and I would like to thank the CREW CFR team for working so hard to ensure that we monitor as many species as possible. We had an amazing trip to Cederberg to monitor *Serruria flava*. We stayed in Wupperthal in wonderful little cottages, one of which was named ‘Love and Grace’. The Saturday was spent sampling the fynbos on the road to Eeslbank. This is the only area where *Serruria flava* is known from. We were very excited to see the first plant in flower. Sadly the rooibos tea industry is growing rapidly and *Serruria flava* is becoming even more threatened due to the expansion of Rooibos tea plantations. The next day we headed off to the Citrusdal area to find *Sparaxis roxburghii* and *Geissorhiza louisabolusiae*. We did manage to find the *Sparaxis* but it was already in seed. It was fantastic to be out in the fynbos and it brought back fond memories of my Protea Atlas field trips with Tony Rebelo.

This has been a special year for CREW. After searching for *Lachenalia matthewsii* in the Vredenburg area for 4 years we finally got to see the species. After our planned weekend outing to Vredenburg I was very sad that we did not find it for yet another year. I was absolutely convinced that the species was extinct and that we would only ever see it flowering in an ex situ environment. A week later I got a call from one of our newest volunteers, Koos Claassens to say that he has found *Lachenalia matthewsii*. We immediately made arrangements to go back to Vredenburg to see this elusive species. The first site we visited was right on the edge of town and there were approximately 3000 plants. The next site was even more incredible. We made an estimation of about 70 000 plants, one could even see the bright yellow patches from the road. This gets my vote as the best field trip I have ever been on.

Other amazing discoveries this year has been Tilla’s discovery of *Cullumia selago* (last seen in 1970, thought possibly to be extinct) and *Metalasia bodkinii* (last seen in 1932) from the Caledon Swartberg. The CREW team also recently went to Natures Valley and found *Acrolophia barbata*. This is one of the rarest of the orchids and orchid enthusiast, Bill Liltved, has been searching for this species for 5 years. Jan Vlok also confirmed that he has not seen this species for a long time and all the localities he knew had disappeared.

The CREW team has also been assisting Cape Nature and Sanparks in the Overberg Fine Scale Planning Project. CREW sampled some key fragments that were classified as either Endangered or Vulnerable to determine what special species occur in those sites and if their status should be upgraded to ensure that are selected as priority areas in the conservation plan that will be developed for the area.

In June we attended the Society for Conservation Biology (SCB) conference in Port Elizabeth. This gave us an opportunity to present our work to an international conservation community and showcase the incredible contributions our project and the CREW volunteers have made to conservation.

CREW led another successful trip at Fynbos Forum this year. We visited Rondeberg Private Nature owned by Mark and Carol Duckitt. Rondeberg is a really amazing site and while making preparations for the field trip we did a count of many species that have been recorded from this farm. A staggering 71 threatened plants occur on this farm and it really is the treasure chest of the West Coast.

Finally we would like to welcome Caitlin back after her two month sick leave break; she is back in the office and feeling great. We also have a new addition to the CFR team, Vathiswa Zikishe. She is originally from George and use to work at the Outeniqua Nature Reserve. Vathiswa joined the team in September as the CREW project assistant we are really delighted to have her as part of the team. Sadly we had to say goodbye to Shela Patrickson who was filling in for
Caitlin while she was away. We would like to thank Shela for the amazing work she did over the last four months working with CREW. I hope that she will still stay involved with the CREW programme.

Thanks to all the hardworking CREW volunteers. I think all the groups have had a really good year and I look forward to seeing everyone at the next CREW workshop. We have decided on a venue and the 2008 workshop will be held in the West Coast National Park at Geelbek. We will send details of the workshop soon.

Ismail Ebrahim
CREW CFR Manager

Figure 1 Lachenalia mathewsii. Rediscovered after four years of searching

Gladiolus pubigerus

Cameron McMaster, Napier:

Fire is a natural phenomenon in the grasslands of the summer rainfall areas and all grassland species are adapted to regular spring flowers. In fact many species are dependant on regular fires to flower, set seed and germinate in the brief window of opportunity after a grass fire. A rare and fascinating Gladiolus is one such species.

On 7 September 2000 a devastating fire swept the eastern spur of the Amatola mountains above Stutterheim in the Eastern Cape, destroying hundreds of hectares of pine plantation. While the loss of the timber was a tragedy, the hundreds of hectares of mountain grassland adjacent to the plantations that had been protected from fire for many years was also burned, triggering a profusion of spring flowers. On 25 October, nearly six weeks after the fire, I set out after the early mist had cleared to explore Kologha Ridge near Dohne Peak. Near the summit of the ridge my heart skipped a beat when I saw at my feet, a number of small gladioli that in 30 years of exploring these wonderful mountains, I had not seen before. An interesting feature was the strongly scented yellow-green inflorescence cocked at right angles to the stem. We subsequently identified it as Gladiolus pubigerus, a species having only been recorded twice before in the Eastern Cape in the 1800s. A quest to unlock the secrets of this rare plant was to be an important part of my botanising for the next few years.

Why had we not noticed it before and why had it not been recorded regularly in the Eastern Cape? Confined to the montane grassland, it is uncommon and not widespread, occurring in small isolated populations here and there. Plants have only two and rarely three leaves. The lower one is basal, sheathing the lower half of the flowering stem, giving the plant a very grasslike appearance. Its flowers are inconspicuous and can easily be overlooked. Finally, it appears to be dependant on fire to flower. Repeated visits to all the sites where we first found it did not reveal any further flowering plants in years that there was no fire.

Over the years this species has been found in a number of spots – it usually occurs as small clumps of just a few plants. In October this year while out with the CREW Hogsback group we found a population of around 20 plants at Rooikop ridge close to Hogsback, subsequently one of the CREW volunteers Elena Joubert has found another population. It is only through extensive surveying that we now have a more accurate idea of this special species distribution and abundance.
The Hogsback CREW group was formed approximately two years ago and has 8 active members and around 20 who come on occasional outings especially if the group has a visiting botanist leading the outing.

The Hogsback CREW project has four main objectives:

1. To digitally map all the grasslands, wetlands and forest areas around Hogsback.
2. To identify, photograph and record on a database all the flowers that bloom in the above areas. This data should enable CREW to identify the threatened and endangered species.
3. To provide eco-tourists to Hogsback with information on which flowers are likely to be in bloom throughout the year and where they can be found.
4. To develop conservation plans for all the above areas to ensure that this botanical wonder is well maintained and preserved.

The progress to date is as follows:

- 11 grassland, 3 wetland and 6 forest areas have been identified and mapped.
- Approximately 100 different species have been identified in one or more of the above areas.
- Three endangered species have so far been identified.
- An Access database is currently being set up. Approximately 500 records have so far been entered in this database.
- The use of the database to promote eco-tourism can only commence once the database has sufficient information entered to make it useful to tourists.
- A draft conservation plan for one grassland has been prepared. Approval of this plan by the land owner is still required.

Disa lugens, an endangered orchid species, the biggest population of this species occurs in the Hogsback region. Photograph: Ken Harvey

Tritonia disticha. Photograph: Ken Harvey

The Annual Indigenous Plant Fair, organized by the Botanical Society’s Kwa-Zulu-Natal coastal branch was held on 1-2 September 2007. The Custodians of Rare and Endangered Wildflowers (CREW) project was exhibited. The CREW stand provided information brochures to encourage the almost 2000 visitors to partake in activities that promote plant conservation. A fascinating part of the exhibit was a few of KZN’s rarer plants, brought live for the delight of the visitors. The Clivia miniata and Cyrtanthus obliquus charmed everyone with the beauty of their flowers. Connoisseurs and students of the ultimately rare were thrilled to see a real, live Raspalia trigyna on the CREW stand — probably the only chance many of us will ever have to see something this rare and special.

Various environmental organizations were represented. The Lepidopterists’ Society, a partner of the Threatened Species Programme, provided publicity to the South African Butterfly Conservation Assessment (SABCA) project that was launched late last year by SANBI. The SABCA team also persuaded the organizers to have the theme for this year as Butterfly Plants. BirdLife promoted SANBI’s newly launched South African Bird Atlas Project II (SABAP II).

It was evident that the plant fair did not only give plant enthusiasts a chance to find that elusive plant or just to get some inspiration for their gardens but also taught them the importance of plant conservation.
After the trials and tribulations of setting up office in a non-SANBI organization at Queen Elizabeth Park, the headquarters of Ezemvelo KZN Wildlife (fortunately during the quiet winter months), flowering season and threatened plant hunts have kept us frantically busy. We have traveled from Mtentu to Wakkerstroom and many places in between and met some fantastic people and seen some amazing plants.

One of the most exciting facets of our work is supporting the Ezemvelo KZN Wildlife Stewardship Programme led by the dynamic Kevin McCann. Starting with eight pilot sites, the programme is now being inundated by requests from landowners to have conservation sites on their properties. The role of CREW is to accompany the stewardship facilitators to the sites and assist with site assessments and to provide information on what threatened plant species are likely to occur, as well as to compile species lists where possible. We have so far visited seven of their sites. One of the pilot sites is Roselands near Richmond which has really high conservation value with an area of pristine mistbelt grassland with oribi, blue swallows and Hilton Daisies! We have started collecting for a species list and plan to map the Hilton daisy population later this month.

We are also working with volunteers and have a well-known and long standing group in Pondoland (led by the very knowledgeable Tony Abbott), and the fantastic botanical skills of David Styles in the greater Durban area. CREW volunteer groups have started in Greytown (Sue Swan), Pietermaritzburg and Boston.

Our first PMB CREW outing was a really rewarding morning on Saturday 22nd September when over 20 folk arrived at the Cleland grassland and set to counting Brachystelma franksiae susp. franksiae (Apocynaceae). This is a PMB Red Data List special, with only one outlying record from Escourt. The plant is seriously threatened by the seemingly never-ending demand for new land for housing developments in this rapidly expanding city. Aided by good photos of the plant from Peter Wragg (a young botanist from UKZN), even the non-botanists were soon shouting that they had spotted one. We GPS’d each sighting and have now got a good idea of the population size and distribution. The population appears to be fairly healthy with over 200 individuals marked. Nothing is yet known about pollination of this plant, but hopefully a student or CREW volunteer will be willing to spend a few hours monitoring it? Peter compiled a species list as we went along and recorded over 70 species with possibly two other Red List specials (and there are probably a lot more species which will appear when the rains finally arrive). This monitoring work is a really valuable contribution as we can now write to the Msindusi Municipality (who are custodians of the area) and tell them quantitatively how important this fragment of grassland is for conservation!

We have been really encouraged by the interest shown by the KZN folk, and by their willingness to get involved in updating our knowledge of the province’s threatened plants.
Thanks to the following for helping us to get going - Rob Scott-Shaw from the EKZNW biodiversity section, the UKZN Bews Herbarium (NUJ) and the SANBI Herbarium in Durban (NH). It has also been a lifesaver having the SANBI KZN National Botanical Garden’s facilities and advice close at hand.

**Isabel Johnson**  
CREW KZN Manager

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**Brachystelma petraeum**, a vulnerable endemic from Byrne, recollected by CREW in October.

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**Joining the CREW:**  
Reflections on a tumultuous spring season

*Rupert Koopman*  
CREW CapeNature Botanist

A pretty long and fruitful association with the CREW project as a volunteer and more recently as self named CREWpie, I formally joined the Cape Town team in April with the designation Cape Nature / SANBI Contract Botanist. The position is funded by the Table Mountain Fund. The brief was essentially the same — find and monitor rare and endangered plants but with several twists. I would primarily be assisting CapeNature with matters botanical — on reserve rares monitoring, inputs into landuse decision making, stewardship site assessments and more.

The supreme irony was that this spring season, I spent far less time with the Cape Town CREW team than when I was a volunteer! However, this was ameliorated by the fact that I was able to immerse myself in all things botanical, covering many miles, getting to interesting new places and revisiting some of the old familiar places.
I spent most of April getting orientated and then hit the road: I spent quite a chunk of the next two months in the Malmesbury, Darling, Slanghoek, Atlantis, Mamre, Vredenburg (amongst others!) areas providing inputs into potential stewardship sites with my Cape Nature colleagues.

For me, the spring season kicked off in mid-July with the national CREW spanbou/planning meeting held in Kamieskroon at the Succulent Karoo Knowledge Centre. The annual Namaqualand floral kaleidoscope was already in full swing, with carpets of orange *Ursinia* greeting us at the Skilpad entrance of the Namaqualand National Park (NKP). The sheer size of the consolidated NKP is (especially by Western Cape lowlands standards) mind-boggling as it now stretches from Kamieskroon near the N7 all the way to the coast at Hondeklipbaai. I was fortunate enough to spend two more weeks up in Namaqualand mapping fynbos on the coastal plain and was totally entranced by the vast undeveloped tracts of land and spectacular landscapes.

From this point on, spring dissolves into a blur of fieldtrips and meetings but I’ll try and provide a month by month selected highlights package.

**August**
Tilla and I accompanied Clifford Dorse, of the City of Cape Town’s Biodiversity Management branch, to an amazing remnant of fynbos right next to the Vissershok dumpsite. The site is, of course, threatened by development as it is adjacent to a brick factory and the substrate is heavy lateritic soils, which makes great bricks. Intervention is planned and we will definitely be running future CREW trips to the area as it is riddled with rares. Cliff also showed us the Friends of Blouberg’s sand fynbos patch, which had been totally covered by Port Jackson but after three years of clearing was recovering brilliantly. This gives hope for similarly heavily infested natural veld in the area north of Cape Town and south of Malmesbury.

On the same day, Tilla and I explored the Kalbaskraal remnant. I had visited it in May and found it heavily invaded by dense Port Jackson. On crashing though the thickets, I found thousands of the Critically Endangered *Leucadendron thymifolium* happily (for now) co-existing with the enemy. On the second visit, we were glad to discover several large pockets of relatively alien clear veld in good condition. This site is known for many rares and we will be monitoring it closely.

**September**
I spent a week in Namaqualand, and the rest of the month catching up with the Cape spring which was now in full swing! CREW agreed to help Cape Nature conduct fieldwork in the Overberg area to provide input into the Overberg Fine Scale Plan. Vathiswa joined the team in September and she, Tilla and I spent 3 days in the Botrivier/Karwyderskraal area searching for rares.

**October**
Another one of my projects is to produce a fine scale map of the awesome Riverlands Nature Reserve which is close to Kalbaskraal and just south of Malmesbury. I got to spend several days doing plots in a very diverse and large fynbos remnant. What a pleasure! Round about this time was also a good time to witness the power of the CREW volunteers in action. Karen Marais and the Friends of Tygerberg have been unearthing several very interesting species and playing an active role in the conservation of key sites in their area, as well as helping me monitor the privately owned Briers Louw / Eensaamheid Reserve on a monthly basis. Adriaan Hanekom arranged a meeting with the Mayor of Caledon and relevant stakeholders to find a solution to the Shaws Pass conundrum. And our new volunteers on the West Coast have been very active.

It has been a whirlwind 8 months but I have really enjoyed it and working closely with all the CREW team and volunteers has just enhanced the experience.
Members of SANBI’s CREW project recently met for the CREW’s annual team building workshop to strategize and highlight some of the current and future goals of the project. The main aim of this workshop was to strengthen the social and working relationships amongst CREW members, and to share ideas on monitoring and conserving threatened plants. The workshop was held at a small town called Kamieskroon in the Northern Cape. Upon our arrival at Kamieskroon we were graced with the spectacular scenery of flowering plants that the small town had to offer. The four-day workshop started on a high note where active participation was encouraged by the facilitator Bettina Koelle in order to maximize the concept of people working together cooperatively. This taught me a great lesson that increasing efforts through training and team building workshops helps people to work together more effectively in accomplishing shared goals in the presence or absence of colleagues. The workshop did not only focus on monitoring and conserving plants species but also touched on social issues that might affect us either at the workplace or anywhere in life. Bettina highlighted some of those predicaments and discussed ways in dealing with them without negatively affecting work productivity or other co-workers.

The workshop was concluded with a field trip to the Namaqualand Game Reserve and surrounding areas. The scenery was truly unusual with patches of succulent vegetation scattered between heaps of bare granite boulders. The landscape provided one of the most spectacular displays of wild flowers. Some of the succulent plant families that we managed to see were the Aloes, many species in the family Mesembryanthemaceae (Vygies) and Asteraceae (Daisies) but most importantly interesting species from the Euphobiaceae. I’m currently doing a genetic study on one of their species for my masters so this was interesting for me. It was an amazing experience to be part of the workshop and it was really fascinating for me to see more than one biome (Succulent Karoo, Fynbos biome and Nama Karoo biome) at a single location.

Phetole Manyama
(Red list officer)
Two new CREW groups in Namaqualand

Two new CREW groups have started in September and November based at Springbok with 18 members and Kleinsee with 21 members. The first group will be investigating the Springbok surrounding of the Granitic-gneiss complex, the unique Nama geological system of Spektakelberg and the Steinkopf surroundings with many species only known from type localities here. The group also wanted to include Bushmanland where some of the CREW members have farms and they believe it to be special. Contrary to what I thought, these people are so keen to start even if it is out of the flower season, that follow-up meetings have been arranged where the procedures will be discussed and a few of the special plant identification “passport” will be shown. Some have volunteered to help with compiling the ID guides and the Kleinsee group is trying to arrange a website, only for CREW members, where they can place pics that we will try to identify. Most of the specials are of course succulents that are not only difficult to press, but also known from such few sites, that one would not like to collect them.

This brings the number of already established CREW groups in Namaqualand to three, with a small group from Soebatsfontein consisting of 6 elderly community members that started last year. The next group to be started before December will be the Kamiesberg group.

The Kleinsee Primary School has also indicated that they would join in the Schools International Plant Monitoring Day and they will be doing it in their small local Molyneux Nature Reserve with a new Lachenalia species described from recently and a possible new Gorteria species. The reserve also has a number of very local endemic species.

Annelise le Roux
CREW volunteer

Plant Monitoring Day 2007—expanding in the CFR

Plant Monitoring Day (PMD) is an annual innovative educational exercise aimed at making students and their teachers aware of the rich diversity of plants in their local surroundings. Participants employ different sampling techniques using simple plant identification kits and monitoring equipment in order to identify and record core plant species at selected sites. The sites are carefully chosen, not only for their value to conservation, but also for their proximity to local schools as well as their reserve status or equivalent, the latter being an important factor in order to ensure their sustainability in the future.

2006 marked the trial run of Plant Monitoring Day. Six areas were involved—namely Niewoudtville in the Northern Cape, Mamré and Darling on the West Coast, Green Futures College near Gansbaai, Harmony Flats in Strand and St Francis Bay in the Eastern Cape. The event proved to be a great success and PMD was incorporated into the CREW programme as one of the core environmental educational activities. This year PMD took place at the existing six sites as well as at two new sites. The new areas chosen were Tygerberg and Swellendam.

The ever enthusiastic Tygerberg CREW were so excited about the activity that they decided to take two schools out into the field this year. Both were primary schools on farms, only going up to Grade 6. The kids were thus a bit younger than the suggested grades 7 to 9. Their first site was Uitkamp Wetlands in D’Urbanvale. On Monday the 3rd of September a group of 14 students from the nearby Blue Mountains Primary School took part. The second school was The Valley Primary School, situated on Altydgedacht. A group of 16 learners was taken to the Altydgedacht Heritage Site on Friday the 7th of September.

In Swellendam PMD took place at Bontebok Park on a cold 7th September. There were 22 children, 2 from Swellendam secondary school and 0 from Bontebok primary school.

At each site students were accompanied by their teachers.
and CREW representatives. At Bontebok Park the newly appointed People and Conservation officer assisted, as well as the rangers and student rangers. Before commencing the monitoring activity, students were briefed as to the context and aims of the conservation educational exercise, the importance of scientific method as well as the types of plants to be monitored. After the briefing, students were provided with a monitoring kit which included: a plant ID booklet and instruction manual especially prepared for the site; 50 m tapes, string, pegs and flags to mark out the plot; quadrats, environmental monitoring instruments (GPS, thermometer) and data collection forms and pencils. Once on site, with the help of teachers and CREW representatives, students set up the 50 x 50m plots and 10 x 10 m plots within these. Air and soil surface temperatures were recorded, fixed point photography taken and GPS readings for the centre of the 50mx50m plot and the centre of each 10mx10m plot recorded. Students then worked in groups, with each group working in one of the smaller plots. Here they monitored dominant species in 5 randomly selected quadrats, using random numbers provided in the booklet. Following this, they performed a ‘chicken parade’ that involved walking through the site in rows and systematically counting the special (rare and/or endangered) species.

At the end of the fun-filled morning a question and answer session, as well as a brief recap of the whole exercise was carried out. Students with the Tygerberg group were fortunate to enjoy a lunch sponsored by the Friends of Tygerberg (at Altydgedacht) and the Uitkamp Action Group (at Uitkamp). The overall response from the students was very positive, with many of them asking if they could come again next year!

Comments from the Fourcade Botanical Group were entertaining as always. Unfortunately one of the little boys felt nauseous towards the end of the activity because of the smell of the garlic buchu. Another little boy seemed to have improved his counting skills and even helped find the metal dropper using the GPS. Quite an improvement considering last year his counting left a little to be desired (1, 18, 5, 9).

Generally feedback has been very positive and encouraging. With a few new areas taking part each year, the activity should spread rapidly throughout the CFR. 2008 will mark the first year of its national expansion. Long live PMD!

CREW would like to thank all their volunteers involved in PMD for their efforts to make the day a success. Your hard work is much appreciated and your knowledge and guidance will surely aid the students involved in developing a keen interest in biodiversity conservation.

Caitlin von Witt
CREW CFR co-ordinator
The air buzzed with excitement, as 60 Grade 9 learners from Rusthof High School explored the wonders of Harmony Flats Nature Reserve on 6 September during Arbor Week.

Harmony is a tiny green gem hidden on the Cape Flats in Strand. The 9-ha plot is surrounded by extremely poor communities and rampant urban sprawl. It supports a unique mixture of threatened vegetation, of which there is less than 7% left in the world. The combination of Renosterveld and Lowland Fynbos, known as Lourensford Alluvium Fynbos, is home to an astonishing variety of plants including the Critically Endangered *Ixia versicolor*.

Two members of the Animal Demography Unit were as excited by their morning at Harmony Flats as were the Rusthof kids. Drs Silvia Mecenero and Marienne de Villiers co-ordinate SABCA (the Southern African Butterfly Conservation Assessment) and SARCA (the Southern African Reptile Conservation Assessment) respectively. They met up at the reserve with a team from Cape Flats Nature, a partnership between the City of Cape Town’s Biodiversity Management Branch, the South African National Biodiversity Institute (SANBI), the Table Mountain Fund (WWF-SA) and the Botanical Society of South Africa, associated with Cape Action for People and the Environment (C.A.P.E). The project’s aim is to encourage sound sustainable management practices for urban conservation areas so as to benefit surrounding communities, particularly where incomes are low and living conditions poor.

The morning’s activities began with talks by Rupert Koopman (CREW, Custodians of Rare and Endangered Wildflowers Project), Silvia and Marienne about the fascinating fauna and flora of the area and on the importance of conserving the reserve. Then it was off to the field, and the hunt for flowers, butterflies and reptiles was on.

Two species of butterflies were observed at the reserve, one the common African Monarch, and the other a Silver-bottom Brown. It is hoped that further surveys will uncover more and special butterfly species, considering the special plants that occur in the area.

An encouraging reptile find was a Parrot-beak Tortoise, or Common Padloper. This little tortoise, named for its strongly hooked beak, averages only 70–90 mm in length when fully grown. It once shared Harmony Flats with the Geometric Tortoise, but while the more hardy padlopers were able to survive the frequent unnatural fires that plagued the reserve, the Geometrics were not. Much excitement resulted from the discovery of a Spotted Skaapsteker. Despite its intimidating name, this handsome snake is not dangerous to humans and mostly feeds on rodents, lizards, frogs and other snakes. Some confusion was caused by a glimpse of a small stubby legless reptile which disappeared quickly under grass tufts before it could be closely inspected. Later finds of similar beasts indicated that this was probably a Common Slug Eater (or Tabakrolletjie, for its habit of rolling into a tight ball when threatened), a harmless little snake that eats snails and slugs.

According to Sir Francis Bacon, “Knowledge and human power are synonymous, since the igno-
rulence of the cause frustrates the effect.” We hope that through the morning of exciting discoveries at Harmony, the learners of Rusthof absorbed an understanding of the uniqueness of the small nature reserve on their doorstep, and the importance of the conservation of ecosystems as a whole. This may, in some small way, empower them to live “in harmony” with their environment.

Virtual firsts: the Reptile and Butterfly on-line Museums

Marienne de Villiers & Silvia Mecenero

UCT’s Animal Demography Unit is spreading its wings - its interests are no longer confined solely to birds. SANBI and the ADU launched SARCA (http://www.reptiles.sanbi.org), the Southern African Reptile Conservation Assessment, in 2005. This year SABCA (http://butterflies.adu.org.za), a sister-project for butterflies, was launched also by SANBI and the ADU. Butterflies and reptiles are both under-appreciated components of South Africa’s natural heritage. There are close to 500 species of reptiles in Southern Africa, compared to 680 species of resident breeding birds. In South Africa alone, there are 671 butterfly species.

Despite this richness, butterflies and reptiles tend to be overlooked in conservation plans, partly because available information is very incomplete and not easy to access. SABCA and SARCA aim at improving our knowledge of the distribution in South Africa, Lesotho and Swaziland of the species within these two extremely diverse animal groups. By compiling an up-to-date Atlas and Red Data Book for each group, the projects will provide conservation agencies with a clear definition of conservation priorities and will thereby facilitate an improvement in the conservation status of species.

An important facet of both projects is public participation. Reptiles in particular are in dire need of a public face-lift – an improved understanding and appreciation for this much maligned group is essential for effective conservation. SABCA and SARCA not only work at educating members of the public about butterflies and reptiles, but also rope in the public to help collect distributional data. Anyone with email and a camera can take part, by sending in photos of animals and accompanying geo-reference data to the projects (sarca@adu.org.za and sabca@adu.org.za). Detailed instructions on how to participate are on the project websites. As CREW volunteers spend much time in the field with GPS looking for rare plants we are hoping that you may be interested in helping us collect data on butterflies and reptiles.

Cape Dwarf Chameleon.
Photographer: Marienne de Villiers
South African National Survey of Arachnida (SANSA) — how CREW volunteers can help

South Africa has a rich arachnid fauna with about 4,913 known species, which represents 6% of the global arachnid diversity. Currently, 75% of these arachnids are endemic to South Africa. However, our knowledge of the arachnids is still sketchy in terms of their taxonomy, ecology and distribution with large areas still not sampled.

Arachnids are a group of eight-legged animals and second only to insects in abundance and diversity among the terrestrial animals. The class Arachnida comprises 12 living and 5 extinct orders, of which nine occur in South Africa. They are Acari (mites and ticks), Amblypygi (whip spiders), Araneae (spiders), Opiliones (harvestmen), Palpigradi (micro whipscorpions), Pseudoscorpiones (false scorpions), Schizomida (schizomids), Scorpiones (scorpions) and the Solifugae (wind spiders).

In 1997 at the Spider Research Centre of the Biosystematics Unit of ARC-Plant Protection Research Institute “The South African National Survey of Arachnida” (SANSA) was initiated to meet the requirements of the Convention on Biological Diversity (CBD). SANSA is an umbrella project dedicated to unify and strengthen biodiversity research on Arachnology in South Africa.

A second phase of SANSA was launched in September 2006. This four-year inventory and conservation assessment project is a partnership project between the Agricultural Research Council (ARC), and the South African National Biodiversity Institute (SANBI). The Spider Research Centre of the ARC-Plant Protection Research Institute is to coordinate this second phase of SANSA. Most of the identification and databasing will be undertaken in Pretoria. This unit is the largest centre of arachnid research in the country, having more than fifty years of experience working with arachnids.

The project consists of five initiatives addressing aspects such as accessing existing data, gap analysis, surveys, identification of existing data, awareness, capacity building and compiling products. The aims of SANSA are:

- to discover, describe and to make an inventory of the arachnid fauna of South Africa
- to organise this information in a database and to make the data available to science and society
- to use information for sustainable use and conservation planning
- to develop products that meet the need of the community:

reptiles too. Back at the ADU, data technicians capture the data which are then uploaded onto the Virtual Museums on the project websites, where the photographic records are freely available for anyone to view. The reptile museum, now three years old, currently houses 3300 records. The butterfly atlas, comparatively young, houses about 180 records.

We need your photographic records! Whether from your garden or from a remote place in the country, all records are valuable to us.

Contact:
www.reptiles.sanbi.org
www.butterflies.adu.org.za

Gold-banded Forrester. Photographer: Jenny Norman
Collecting: If you do not have a camera but would still like to participate we can provide you with collecting material. On receiving these collected specimens we will identify them for you and provide a list of names. The material will be incorporated into the database of the South African National Collection of Arachnida. If you are interested in collecting please let Suvarna Parbhoo know (Parbhoo@sanbi.org) and she will get you the collecting materials from the ARC.

Participating in collecting trips: If you are interested in participating in collecting trips please contact us.

Collecting areas: If you have a farm or are a reserve manager and would like to know the diversity of the arachnid fauna of your farm or reserve you are welcome to contact us as well.

Interested people are welcome to contact us or visit the website. A newsletter is also distributed every three months.

Ansie Dippenaar-Schoeman
Project manager SANSA
DippenaarA@arc.agric.za
The Mpumalanga Plant Specialist Group (PSG) CREW work in 2007

The Mpumalanga Plant Specialist Group (PSG) was started over 10 years ago, and consists of a group of amateur botanists from all over Mpumalanga. The members of this group have developed a good knowledge of the provinces’ flora, but tended to perhaps concentrate too much on the woody vegetation. In February 2007, the PSG met with the Tilla and the national CREW team and the PSG decided to shift its focus towards the CREW objectives. So as from February, most of the PSG outings (not all of the talks though) have been to areas where the group has tried to relocate or monitor threatened species.

The three main areas of involvement from the group will be in: monitoring of very threatened plant populations; trying to relocate Data Deficient plant taxa; and recording the distribution of other threatened plant taxa for the Mpumalanga Tourism & Parks Agency and for SANBI. Monthly outings for the year were then proposed and the PSG have had several CREW outings since then.

Our first big outing was in February 2008 to a rocky ridge just outside Lydenburg to look for the Critically Endangered Adenia wilmsii. I had once found 3 plants on this ridge about 8 years previously. The plants were cryptic but together the PSG CREW members were able to locate 18 plants in an area of 1 x 0.2 km.

Our second outing was in May to a patch of serpentine near Badplaas to look for Aloe reitzii var. vernalis. A small disjunct population occurs here although some uncertainty still exists as to whether it is subspecies vernalis or subspecies reitzii. The PSG CREW members formed a line and swept the serpentine area looking for more plants. A total of 43 plants were counted. The following day we visited another lesser known patch of higher-altitude serpentine between Carolina and Badplaas. Here we found the Vulnerable Gladiolus appendiculatus (Mariepskop form). In Mpumalanga we recognize 3 distinct taxa within the G. appendiculatus complex.

In June we were brave and tried to relocate Delosperma zeedcraperbergii, last collected in 1933 along the Spekboom River just outside Lydenburg. It is only known from this one old locality. Sadly we were unable to locate this plant and it still remains as Data Deficient (see details of this outing in box written by Lize Agenbag).

In August PSG CREW set up a monitoring programme for a Critically Endangered medicinal plant. Dioscorea sp nov (hope-fully to be described soon as D. ebutsiniorum) was first discovered in the medicinal plant trade and a traditional healer took Gerhard Strydm to where the plants were growing in the wild. Sadly it is only known from one very small area where about 250 plants occur in situ. Half of these have been seriously harvested for muthi so the in situ future of these plants is not looking great at all. The PSG CREW decided that this is a population that would require monitoring and management, so we all climbed up a large mountain where we measured and recorded various aspects of this plant that can assist with interpreting the regeneration patterns and harvesting impact. The following day we headed off to a serpentine ridge near Barberton where we walked and GPS’d the occurrence of medicinal (Merwilla plumbea) and...
threatened plant taxa (*Rhus pygmaea* and *Ozoroa barbertonensis*). These were added to the MTPA database and will be used in modelling and conservation planning initiatives.

PSG CREW are enjoying the added purpose to the regular botanical excursions. The first few outings are very much a success, but they are dependant on the support that is so enthusiastically given by Tilla, Liza and Suvarna. They are all trying to join us on our outings and having them there with us, makes us work that little bit harder too! And they are providing us with loads of background research to make the search for these Data Deficient or threatened taxa that much easier!

Each *Dioscorea* plant has been individually tagged, measured and the amount of the caudex lost to harvesting estimated, monitoring will be repeated on an annual basis. Photograph: Domitilla Raimondo.

Their support is very much appreciated.

*Mervyn Lotter*

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**Not finding *Delosperma zeederbergii***

Relocating rare and poorly known species from old herbarium specimens can be an interesting venture into the history of an area. Combining historical knowledge with some ecological sense can be a great guide to where to start looking, but still it is not always that easy! So did members of Mpumalanga’s Plant Specialist Group discover when, directed by the notes on E.E. Galpin’s type specimen “kranz, Spekboom River, near Lydenburg, altitude 1500 metres” they set off to look for *Delosperma zeederbergii*, which was last collected in 1933.

E.E. Galpin (1858-1941) was a banker, amateur botanist and prolific collector with more than 100 species named after him. After his retirement in 1917 Galpin settled on a farm near Nylsvlei, but despite his failing eyesight continued his collecting expeditions, especially after his son taught him at the age of 69 to drive a car! Galpin’s collecting strategy was to always thoroughly search a chosen site and collect every species present, which resulted in him discovering many new and rare species, including *Delosperma zeederbergii*.

The search started along the Spekboom River just outside Lydenburg, where an old bridge built in the 1920’s crosses the river near the road to Ohrigstad. Everyone was distracted for a while by some interesting botanising, but it became clear that no suitable rocky cliff habitat occurs along this stretch of the river. The search expedition moved upstream to the farm Doornhoek where there was some nice looking ‘kranzes’, but still no sign of *Delosperma*. We started considering Galpin’s altitude more seriously, which indicated that we should move even further upstream towards the high escarpment peaks above Lydenburg.

A dirt road out towards some farms east of Lydenburg leads up along steep cliffs high above the Spekboom River. This area appeared much drier, and the presence of many other succulents among the rocky cliff edges was looking very promising. A chance meeting with a passing farmer revealed that the road we were following is about a hundred years old, and was built for the now abandoned Finsbury Mine. This gave us even more confidence that we are on the right track, as this road was probably a well used passageway during Galpin’s time, and he might have collected *D. zeederbergii* on cliffs somewhere along this road. The search was resumed with new enthusiasm, but with no success, and as shadows were getting longer we had to admit defeat (for now).

We are, however not giving up, and will be back to look again for *D. zeederbergii* next year. We are quite certain that the Finsbury road is the right area to look, but we must improve a bit on our timing as we were looking slightly later than when the flowering type specimen was collected. Better understanding a few other clues may also help us to solve this mystery. For example, why is it named *Delosperma zeederbergii*? Might it be named after one of the Zeederberg brothers, who owned a transport company which operated in the area during the late 1800’s? CH Zeederberg & Co transport was quite famous at the time for their coaches drawn by teams of zebras. Was it perhaps collected on a farm owned by one of the Zeederbergs? Investigations of old maps of the district and other archives may provide clues to further narrow down the search area. Watch this space for more updates on the unravelling of this mystery...

*Lize Agenbag*
Red List officer
We are a small group working with the CREW KZN office under the guidance of Isabel Johnson. The area we work in has several rare species, perhaps the most notable of them being *Gerbera aurantiaca* (the Hilton Daisy) and *Fanninia caloglossa* but there are many more including some rare Orchidaceae and Watsonias. The area is dominated by commercial timber plantations and sugar cane but there are several important Mist-belt grasslands areas which include the Blinkwater Nature Reserve and the Lake Merthley grasslands, now proclaimed a flower reserve, as well as wetland areas such as the Umvoti Vlei.

Sue Swan
CREW Volunteer

Our Thursday walks have taken a new turn with our participation in the CREW project. With our environment at the mercy of politicians whose desires and objectives lie only in the immediate term and developers whose only goal is money in spite of any environmental damage caused, anything which assists the managers of our biodiversity is well worth the effort. In short, it is the question of knowing what you have, where it is and how it is doing order to better manage environmental systems.

We are joining with Derrek Ruiters of KZN Wildlife to assess the Mbumbasi Nature Reserve. This is a long neglected piece of land behind Margate which is now receiving attention; the project fits in well with CREW’s objectives. Apart from this we have undertaken a transect of the so-called “Rennies” property, the remainder of a farm next to Port Edward which is awaiting a developer’s attention. Of the whole, perhaps only a quarter should receive the blessing of the authorities when an application is made, for the balance consists of wetlands and hygrophilous grasslands. The transect of about 200m clearly revealed the character of the area. This was our first independent operation and no doubt experience and advice will improve our efforts.

Other areas have been highlighted for our attention and we shall enjoy making further contributions to the CREW objectives.

Tony Abbott
CREW Volunteer

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**CREW Umvoti Group (KZN Midlands)**

The endangered species *Gerbera aurantiaca* (the Hilton Daisy).

*Fanninia caloglossa* — a species restricted to mistbelt grasslands.

The threatened *Lotononis bachmanniana*, a rare species limited to the north-eastern parts of the Transkei & the south-eastern parts of Natal.

*Kniphofia coddiana*, a near threatened Pondoland endemic restricted to coastal grasslands on the Msikaba sandstone formations.
Boy, have we had a busy year!! This is the first year that we have had field trips almost every week. Friday mornings have become our group’s field day! We started off going out every second Friday, but that soon changed to weekly outings. We have also spread our wings a bit, moving out of suburbia and visiting more farms and what a difference this has made. Especially to our group’s morale (working within the suburbs of Cape Town can make the most optimistic person depressed…)! Our weekly wonders have certainly caused a rather steep learning curve within the group and I can only say "well done guys and gals, you are all champs!"

We were surprisingly lucky with the weather too: there were very few Fridays that we had to spend indoors. Those were spent working on the Tygerberg Nature Reserve’s (TNR) photo collection and mounting specimens for the Tygerberg Herbarium, housed at the reserve.

We have had monthly field trips to the Perdekop section of the Bracken Nature Reserve, helping them compile a more complete species list for the area. Briers Louw Nature Reserve close to Paarl has also been on our agenda several times, helping Rupert find specials and updating the reserve’s species list. Other farms we visited for the first time this year were Groot Phesantekraal in the Durbanville area and Hercules Pilaar (Joostenberg).

Our plant press worked overtime (READ: we need another press!) with all our trips and we certainly have contributed to the piles of specimens finding their way to the CREW office and ultimately to the Compton Herbarium and the Tygerberg Herbarium. We found some real beauties, making it difficult to decide which find was the most exciting. Surely one of the favorites must have been finding Babiana secunda. Although we did not find it at a previously recorded site in our area, we found two new localities for this amazing late-flowering little Babiana in one season! (Maybe I should mention that one of these populations is unfortunately in a Renosterveld remnant on a golf course… in an area where they want to build an irrigation dam!!!).

We have also had a very successful Lampranthus season. Lampranthus peacockiae, L. filicaulis, L. glaucus, L. reptans, L. leptaleon, L. dilutus, L. debilis, L. scaber, L. explanatus… some of which we have recorded before, but many were firsts for us! Another highlight was recording Podalyria microphylla, also listed as CR at three localities in our area. The most unspectacular (in looks!!) special this season must have been Cliffortia accockii. It nevertheless had my adrenalin pumping!

Plant Monitoring Day was a first for us this year and we might have bitten off too big a chunk doing two schools at two sites on two different days. But it was great fun and the kids certainly enjoyed themselves, although the data is not of much use I think. Next year we will hopefully have learnt from our mistakes this year and do it better!

Three of us also attended Wendy Hitchcock’s Plant ID course. This was a wonderful experience and has certainly helped us look at more detail. Dissecting plants and using keys to try and identify plants has become a lot easier. Especially Hedi has been great at dissecting, drawing and figuring out specimens!

With the summer season fast approaching, we will spend less time in the field and processing all our specimens and all sorts of bits and pieces that got left behind, while we were having fun in the field!

Thanks to the CREW team at Kirstenbosch for your continued support and enthusiasm!!
The Harmony Flats working group has had quite a rollercoaster ride this year. On the 30th of June the Harmony Flats Working Group officially launched their NPO. Unfortunately, the day did not go as planned with many of the people invited to the launch not attending. In true Harmony Flats tradition the group still managed to make a success of the day by inviting the local kids from the Casablanca community to participate in the day’s activities. The kids really enjoyed the talks, video and the lovely lunch provided by the group.

The arbor week program this year was a roaring success. With the help of Chandra, Benny and Victoria from the Helderberg Nature Reserve everything was well organized and the programme ran very smoothly. They even managed to get a sponsorship from Woolworths to cover the costs of food for the kids visiting the Reserve. The last day of the programme also went really well. CREW did the Plant Monitoring Day activity and we had Silvia Mecenero from the Butterfly Atlas Project presenting an activity on butterflies at the Harmony Flats Nature Reserve. (see page 12 for details)

The big news is that DEAT approved funds for infrastructure development for the reserve in 2005. Construction will hopefully start at the reserve early next year. The reserve will have visitor facilities and paths and fencing will be upgraded.

CREW is in the process of developing a birthday calendar for the Harmony Flats Reserve. The calendar will feature some of the stunning plants that occur on the reserve and will be sold to raise funds to support conservation projects at the Reserve. If you looking for great Xmas gifts don’t forget the calendars will be ready by the end of November.

The Harmony Flats Nature reserve also now has a full time site manager (Sabelo Lindani) employed through the City of Cape Town/Cape Flats Nature partnership.
Napier/Bredasdorp CREW

Despite some members being overseas at this time and others not being available, there have been several CREW outings this spring, mainly to Fairfield, one of the oldest farms in the Napier district. As the Bredasdorp/Napier branch, we have had the privilege of comparing the veld of last year following a fire in early 2006, to the veld of this year, in both Renosterveld and Fynbos. We have been most privileged to have a strong team come out from SANBI to lead some of these CREW outings. We have also been able to occasionally assist Odette Curtis [always a fun outing!] with her surveys of Overberg Renosterveld.

What has become very clear is that we are in a botanically extremely rich area. With the continued cooperation of conservation-minded landowners, we are confident that most of the gems that we are documenting will be well-protected. Of concern, however, is the fact that parts of the Napier commonage are now being used for cattle grazing, one spot being where Babiana montana occurs.

Exciting Botanical Discovery on the Bredasdorp/Napier Mountains

In the early 1800s, an Erica was included in a book titled Andrews Heathery and named as *Erica recurvata*. No details of where it was located were recorded and no such wild Erica was ever seen again. Modern experts considered the painting most likely to be of a garden breed hybrid, bred from seed collected by James Nivens who botanised in the Cape between 1799 and 1811. That belief was miraculously overturned this September when, in the course of a botanical survey of the Bredasdorp/Napier mountain, a few mysterious plants were found. Believing it to be a brand new *Erica* species, Ross Turner, its discoverer and also an enthusiastic member of C.R.E.W, brought his find to the attention of Ted Oliver, the recognised world authority on *Erica*. Ted could not believe what he saw. It was a photograph of the same plant included in his 200 year old book.

The small erica flowers are gathered in a head, about the size of a 10c coin. These heads hang downward like old drooping sunflowers with a very long red style hanging down from each flower. When Ross discovered the plants, he immediately estimated some to be about 200 to 250 years old, judging from the roots which are clearly visible in the rock crevices in which they grow. Ross believes these resprouting ericas could be the very same plants from which Nivens harvested seed. The illustration would most likely have been painted from a plant grown to a flowering stage from these seeds in Kew Gardens, England. (see attached from Andrew’s Heathery.)

Cameron McMaster, a local indigenous bulb expert and another keen C.R.E.W member, who has himself discovered a few new species of plant, says finding a new plant is probably as exciting as being a golfer hitting a hole in one. You may, if you are lucky, have this happen once, maybe even twice in a lifetime, but only if you spend a lot of time at it.

Stephen Smuts

*Erica recurvata* (plate from Andrews Heathery).

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*Babiana montana* in flower at the Napier commange

Picture of *Erica recurvata* in flower, which was rediscovered in 2007. Photograph by Ross Turner
During the past flower show we once more organised a field trip to Shaw’s pass for the TWK mayor and some councillors. Ismail led the trip as we were too busy at the flower show. On his return he informed me that the mayor had told him that the Department of Agriculture were going to give the pig farmers on Shaw’s pass money to build proper pigstys and to fence an area of two hectares around the existing buildings for this purpose. I could not believe that they wanted to do this, anyway, I requested a meeting with the mayor and all the relevant role players, Rupert Koopman joined us for the meeting regarding this issue. I do not want to say too much but the issue is on the agenda for the upcoming council meeting at the end of November. Please hold your thumbs tightly and pray. Hopefully we will have good news for the next newsletter.

We met Shela and Vatishwa for the first time; I decided to call her Vestita (named after Erica vesitita) instead. We then visited the farm Muirton owned by Xavier Badenhorst. This farm is situated to the western side of Shaw’s pass and he kindly agreed to take us on a tour of farm. Unfortunately, time caught up with us and we had to head back. At first glance we were impressed by the apparently good looking veld and it seems a very interesting place to visit again. Unfortunately Hakea grows there like wild fury and Xavier indicated that they did clear some but as we could see, it is going to be a massive task to get rid of them completely. During December we want to go in pursuit of Pelargonium caledonicum and Disa multifida, which has been recorded from this farm in the past. It will be exciting to relocate these species.

The next day the CREW team went back to the farm and they found Erica xeranthemifolia, which is listed as Critically Endangered and is only found on Shaws Mountain.

Adriaan Hanekom
CREW volunteer

Mamré

After a slight delay in the implementation of the Mamré project we are now well underway and the project is moving along quite smoothly.

The City has employed a site manager for the Mamré area and CREW has managed to find and employ a biodiversity facilitator Marvin Wagenaar. He spent some time working in Germany looking after children with disabilities. Marvin had aspirations of being a chef so we will have to put his skills to the test at the next CREW annual workshop. He joined us on our field trip to George and Stilbaai and I think he is now completely bitten by the CREW plant-crazy bug. I am sure that he will have success with creating awareness about the incredible biodiversity in the Mamré community.

The CREW team has also been very busy sampling the vegetation fragments in the Mamré area. We have conducted 9 field trips in the area and have mapped these areas and found some really special plants. Amongst the interesting finds...
were populations of *Xiphotheca reflexa* and *Amphithalea ericifolia subsp erecta*.

The Mamré community put on a fantastic flower show in September. This year they had Koen Kaastens from Clanwilliam to design the flower show display. They also managed to get Solly Philander as the MC for the opening of the show.

CREW, the City of Cape Town and Cape Flats Nature conducted a Stakeholder workshop in Mamré on the 12th of November 2007. The aim of the workshop was to get buy-in from all the relevant stakeholders for the conservation of key sites in Mamré. The other main objective was to develop a vision and action plan for conservation in Mamré.

CREW is also conducting a series of basic ID courses for the Mamré community. Thus far we have done a basic botany course where we taught participants the meaning of all those horrible botanical terms and explained the basic structure of flowers.

The second course was on the major Fynbos families. Participants learnt about the diagnostic characters of the Proteaceae, Ericaceae and Restionaceae families.

Future courses will be held in Mamré and they will focus on Asteraceae, Fabaceae and Iridaceae.

Ismail Ebrahim
CREW CFR manager

It must be seen as ironic that the west coast contains so many special species to search for while there has been no CREW members...until now that is.

It started with a small step when I contacted the head office to volunteer and was surprised to learn that there were no CREW people in the West Coast.

Being the only interested person that I knew of at that time, progress was slow but started well enough when Rupert Koopman came out with me to check on the *Lachenalia viridiflora* population at St. Helenabaai. We managed to find several additional populations of this beautiful viooltjie.

Moreae loubseri could not be found for this year. Being in the area, it was easier for me to be on standby to photograph *Romulea elliptica* in it’s so far only known location near Vredenburg.

At the same time Koos Claassens from Jacobsbaai came into the picture with his impressive floral wealth on his own erven. Koos’ intrigue of an unusual plant was verified on a visit by John Manning and Rupert as being a previously undescribed species of *Tripteris*. It seems to be confined to a small area.

A C-team outing to Koos, as well as new and interested volunteer Barbara Tudor’s erven as well as another erf close by on Trekoskraal boasted a variety of specials. These include *Moreae calcicola*, *Ixia purpurosea*, *Afrolinum capense* (Intermediate), *Afrolinum acumina tum*, *Antimima* sp, all growing on a limestone habitat. The search for *Lachenalia mathewsii*, unseen for 5 years, was disappointingly absent from its known location. A few days later, however, a determined Koos discovered them en masse at a new location!

All the exciting finds made headlines in the local newspapers (because I wrote most of the articles) to spread the vision of CREW in hopes to attract more followers.

More members are to be made from contacts such as those interested in the controversial Trekoskraal development, upon which searches will commence to assist the EIA process.

By the time the next flower season comes we’ll be ready for sure!
Learning through Experience —
SKEP Environment Week in Nieuwoudtville

The Environment Week took place in Nieuwoudtville during the first week of June. Different activities took place and everyone enjoyed it a lot. The environment week was supported by six different organisations such as, INDIGO development & change, SKEP, The Nieuwoudtville Biodiversity Support Group, Media and Training Centre for Health, The Succulent Karoo Knowledge Centre and the Griqua Ratelgat Community Trust. A special thanks to SKEP for funding the activities of the Environment Week.

The aim for that week was to raise awareness around the biodiversity and climate change in the Nieuwoudtville area. It was also to talk about career options in the science and conservation area. Another aim was to teach some of learners about the fascinating way of how these topics can be broadcast through radio communication.

Ten learners were invited on a two day excursion to the Knersvlakte. There they learnt a lot about the ecology of the Knersvlakte, about the different plant species there are as well as what they can be used for. They were also taken on a hike by one of the members of the Griqua community explaining the incredible rock art and sharing some of the Griqua culture with us. After this we experienced a night in the Matjieshuiise, and got a little feeling on how the Griquas lived. Rhoda Malgas taught them about climate change and the effects it might have in the future, for this area especially.

While they had a good time in the Knersvlakte the other learners back in Nieuwoudtville also had a lovely time learning the skills of radio broadcasting and script writing. They learnt how to setup questions for an interview. With the return of the learners that went to the Knersvlakte they got interviewed by these trainee journalists. They also interviewed other local people familiar with these topics.

All the learners together went on a trip to the Quiver Tree Forest, where they did another activity. The activity was to measure the Quiver trees in groups and take GPS points of where the trees are that they measured. All this information would then be mapped.

The Open Office provided young and old to explore medicinal herbs and their traditional use, the use of GIS to produce maps, ecology of the March Lily and career paths in conservation. There were many other activities that took place.

The Environment Week in Nieuwoudtville sparked an interest in conservation as a career option - we will keep you posted!

GPS measurements of Quiver Trees Aloe dichotoma.
Plant Monitoring Day in Nieuwoudtville

Plant Monitoring Day took place on the 7th of September 2007 in the Nieuwoudtville Wild Flower Reserve where Grade 10 learners of the Protea High School and Indigo Biodiversity Facilitators participated in the event and monitored rare plant species using scientific methods.

We looked for some rare species such as Hesperantha vaginata and the Orange Bulbinella (Bulbinella latifolia var doleritica). Despite the alien grasses, we could find healthy populations of both species. This exercise also demonstrated how problematic invasive alien grasses have become in the Wild Flower Reserve. For this purpose we have started a project on Control of Wild oats and other alien plants on Dolerite Renosterveld.

The plant monitoring day was also assisted by a group of BIOTA para-ecologists from Namibia who visited on the day and shared some professional expertise with the Grade 10 learners.

Shannon Parring and Bettina Koelle

Control of Alien Grasses in the Nieuwoudtville Wild Flower Reserve

The Nieuwoudtville Wild Flower Reserve boasts an extreme diversity of especially geophytes and is a well known tourist attraction in the Spring.

However, in the past years, especially after good rains, wild oat is taking over in the flower reserve threatening many endemic and rare plants. In the light of this ever-growing threat the Hantam Municipality (as the current manager of the reserve) has teamed up with a local NGO (Indigo and the CREW biodiversity facilitators) to conduct trials to find out what the best ways would be to manage the alien invasive grasses in the Wild Flower Reserve.

SKEP has provided some funding and we were able to get going with our initial trial plots. We have decided on the following treatments:

Raking the plant material on a trial plot (Donna Kotze)

The CREW Nieuwoudtville Biodiversity facilitators: Estholene Moses, Shannon Parring and Donna Kotze.

Hesperantha vaginata in the Nieuwoudtville Wild Flower Reserve – threatened by alien invasive grasses.
1. Brush cutting and mulching
2. Brush cutting and removal of cuttings
3. Spraying of Co-pilot – a commercially available herbicide

We have monitored 20 plots this season before the initial treatment, and then ventured to tackle the wild oats with a brush cutter working in the cool hours of early mornings to escape the rather vicious biting insects around!

We are now monitoring the plots and will repeat the treatment next year. Watch this space for more results!!!

We are planning some field days with reserve managers and interested land users – if you want to learn more about the results or if you would like to join us email Donna at donna@indigo-dc.org.

Bettina Koelle

The Big Ixia Hunt
Outramps CREW group

Towards the end of 2006, I had an e-mail from Jan Vlok. Peter Goldblatt was looking for a specimen of Nivenia from the Langeberg. We had collected a specimen in 1995 from the Rooiwaterspruit area above Riversdale. Peter asked us to see if we could find one and send it to John Manning. In searing heat with temperatures hovering around 40 degrees, we combed the lower southern slopes below Sleeping Beauty. After several hours fanned out across the slope, the deep blue of several plants caught our eye. Keeping the plant alive in the extreme conditions proved the most difficult part of the exercise, but we managed to fly it to Kirstenbosch and John in fair condition. The upshot of this expedition was that the Rooiberg Nivenia was named a new species.

Early in the New Year, Peter asked us to look for Ixia recondita later that year in the Spring. This plant was originally collected around 1950 by Elsie Esterhuysen, one of the foremost botanical explorers of the 20th century. She collected it from the base of Leeurivierberg and it was never seen again.

We organised 3 expeditions. A Mountain Club of South Africa trip to Grootvadersbosch in August was the first attempt. It was early Spring, but we were taking no chances. Plants have a habit of having their own agendas and that includes flowering-times. There was no sign of it. In September we walked the eastern section of the Langeberg for 3 days. Again the plant proved elusive.

The original locality was the lower slopes of Leeurivierberg which is above the far western corner of the Swellendam Hiking Trail, so off we went to the Marloth Reserve in early October. The first afternoon we headed east and found our first Ixias close to the Glenstroom Hut on an old playing field. We walked...
some distance on the first day of the Hiking Trail branching off to gain altitude towards De Plaat. It was overcast and drizzling and the path was very steep and extremely slippery. It was here that we found our second species of Ixia that roughly corresponded to the description we’d been given of *I. recondita*. The main feature being the stamens enclosed in the perianth tube. The excitement was intense.

The next day we headed west to the farm Sitruspoort and walked up towards the Nootgedacht Hut and then turned east towards Leeurivierberg. In a kloof on the banks of a small stream in thick fynbos we found a number of Ixia plants. It was with great excitement that we realised that this specimen resembled the description of *I. recondita* even more closely. On our way out we spoke to Lizette Kriel, who was very enthusiastic and suggested that we try and get to the trail the next day via Danie de Wet’s farm Bakoond. Danie very kindly showed us the way. He was driving a 4x4 and we were all packed into “The Buchu Bus”. Predictably we got stuck. Danie simply told me to sit in the back and drive the hard-working combi up the mountain. The passengers mostly had their eyes closed. As he got out he said “Jy het nie geweet dat die combi so n goeie 4x4 is nie.” Too right! One wonders if poor old Agathosma will ever be the same again.

The going above Bakoond was a lot trickier than the day before and we split into 2 parties going east and west to cover the most ground. The day’s only find was what we thought was a very beautiful purple Ixia. Our drive down the mountain was a tense affair and it was with a huge sigh of relief that we reached the farmhouse. That evening we spent labeling and sorting out the site sheets. First thing the next day, Jean set off driving to Cape Town with the specimens.

Although our methods of collection and transporting need fine-tuning John was very excited when he saw the plants. The next day we had confirmation that we had found the very rare *Ixia stohriae* above Glenstroom. It was indeed *Ixia recondita* collected on our second day above the farm Sitruspoort. And on Day 3, our purple Ixia turned out to be the rare *Geissorhiza ramosa*. (Oops)

“What next, Peter?” was the question from a very excited Outramps/FOTO CREW group.

Di Turner

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**News from the Fourcade Botanical Group**

With all our rain and after the fires we’ve had the veld is looking magnificent. *Satyrium princeps* by the hundred, *S. hallackii* starting to flower as early as October, and *Merxmuellera cincta subsp. sericea* is thriving in our dune system. All the above are “specials” in our area.

Plant Monitoring Day (1 September) was a great success. Our “patch” that had been severely trampled by the children in 2006 was looking wonderful. Both the *Agathosma apiculata* and *A. stenopetala* were at their best. Obviously the trampling had done them no harm. The children were more focused this year and although it was the second time for many of them they seemed to enjoy it just as much.

During the year, amongst other things, our children have had a day in the forests at Witelsbos News from the Fourcade Botanical Group

News from Fourcade Botanical Group

Kids playing a game of “ecological chess”
where they could experience true forest trees and their understorey, and play ecological chess with Ismail! They also had a busy afternoon nearer home hunting snares and a happy morning exploring the botany and archaeology (and hurtling down the dunes) of the Sand River.

On Saturday 3 November they had a very full and busy day investigating the upper reaches of the Krom River. The day was arranged by Martha Anne and John Finnemore, WESSA and us. There was a great deal to see and explore and workbooks to complete. Hopefully they all went home with more knowledge about our riverine thickets and the importance of our indigenous trees.

Our CREW sampling in the renosterveld is almost over. We have only 2 more spots to do. However, our group has continued to enjoy monthly rambles. What a joy it was to meet up with Christo Botes when he was here, to see a little of what his research involved and to learn so much about our Satyriums. Having an expert in the field with us makes all the difference.

We look forward to our November ramble at the Kouga Dam where Victoria Wilman will show us the nursery where she is growing plants for rehabilitation.

Caryl Logie
CREW volunteer
seen, for example *Anisodontea scabrosa*. It was difficult to find the *Aspalathus smithii* and low growing plants. It may be time for a burn?

The fenced off area at Malanskraal is not quite as overgrown as it has been more recently burnt – 3 years. The populations of *Leucodendron coriaceum*, *Xiphotheca guthriei* and other specials for which it has been conserved are well established and increasing in number.

Two new farms with worthwhile corridors of Renosterveld have been surveyed. More of our threatened species have been discovered. It is always exciting to meet farmers who value their veld and are enthusiastic about conserving it. Most exciting is that there are more populations of *Polhillia*. We hope that the San Souci population is *P. brevicalyx* but keep missing the flowering time!

The Swellendam Wildflower field identification Guide compiled by Shela Patrickson has been really helpful in our continued search for rare and threatened species of the area.

National Plant Monitoring Day was held at Bontebok Park on a cold 7th September. There were 22 children, 12 from Swellendam secondary school and 10 from Bontebok primary school. The newly appointed People and Conservation officer at the Park was really helpful. Part of her job is to involve the children in junior ranger programs and other activities. We were assisted by the rangers and student rangers. Unfortunately the more attractive specials were in a rather inaccessible part of the park so our sample was a bit unexciting in terms of appearance. The children grasped the concept and enjoyed the morning. We look forward to the challenge again next year.

We have increased our regular number of volunteers to three with another keen to join us whenever it is possible. It is great that Odette Curtis has been appointed to liaise with farmers on behalf of the Cape Nature Conservation Stewardship program. It is really important for them that their enthusiasm is recognized.

*Flora Cameron*
CREW Volunteer

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**Activities of the CREW group from Darling during 2007**

We started off with great excitement as there had been a fire through the Groenkloof Reserve at Darling, as this bodes well for the Renosterveld. After the first rain in March we found one solitary specimen of *Brunsvigia bosmaniae* on a rocky outcrop — off to a good start as these are not that common round here. The following weeks of good rains were spent getting our herbarium up to date — we now have 1000 specimens collected in the Darling area, collected on 26 different sites.

After a tip-off from Nick Helme that there might be *Cadiscus aquaticus* near Darling we went to the site – a small wetland that is a small pond in winter – and there they were. A sheet of small white water daisies floating in the sun! This is on the boundary between Darling village and the farm Oude Post where there is the only population of *Babiana pygmaea* in our area. This year the stand was even better than before with well over 100 plants we counted on 28 August. The plants seem to be spreading further than before which is also encouraging. The landowner keeps all animals away for the flower season, and is one of our great supporters.
We were very lucky to find some unusual orchids which we certainly had not seen before – *Disperis cucullata* from two sites, the farm Baarhuis and in the Tienie Versfeld Reserve. After Anton Pauw had reminded us to look for *Pterygodium caffrum* at Contreberg, we actually found them also at Baarhuis, where there also was a good number of *Gladiolus quadrangulus*, and the best *Nemesia strumosa* ever in all shades of yellow to dark orange.

While out picking flowers for the show we happened upon a few *Disperis bolusiana*, although we are still not sure if they are perhaps *D. bodkinii*. These are tiny little orchids growing under the bushes in Renosterveld on The Towers Farm.

Our stand of *Pterygodium cruciferum* were out in full force at Contreberg farm after the area was burnt in March. The landowner has fenced off the area to protect them from the sheep and there were also more in number this year. This whole wetland was covered with *Kniphofia uvaria* for the first time in years, because of the fire.

We were lucky to join Caitlin and the team on a visit to Riverlands where we found *Disa tenella, Schizodium obliquum, Babiana mathewsii* and others. A wonderful day was had doing some serious 4x4 driving in water and mud with Caitlin at the wheel! With Shela and her team on a visit to Burghers Post farm we found a few *Pterygodium inversum*, large robust specimens growing on an old land. There we also found a new site for *Gladiolus quadrangulus* already in seed, which we will monitor next year.

With all the late rains Tienie Versfeld has been glorious to visit in October, and the stand of *Geissorhiza darlingensis* has been better than ever. We reckon that there must be well over 1000 plants now which is really encouraging. They have also spread over a much wider area within the reserve. The *Lachenalia purpureo-caerulea* were also more in number and the plants were robust and taller than before.

From all of us at Darling we thank the CREW team at Kirstenbosch for all the support, and welcome back Caitlin!

*Heleen Preston*
CREW Volunteer
So... the infamous “Golden Oval”. With as much attention as a remnant of this stature deserves and in this case receives, something must come of it and Kenilworth Racecourse Conservation Area (KRCA) has truly reaped more reward over the last eight months than it has in decades. And I am sure many concerns over the well being of KRCA have been laid to rest thanks to a lot of hard work and caring hands and minds.

For those who don’t know, KRCA has been under Full time management as of February this year and has been accompanied by at least two staff at any one time.

Under the guidance of Maya Stauch (Reserve Manager) some very needed relations have been forged between the many parties with their hands in this sweet pie. The interests have always been there, as well as the knowledge. But never before have any of these been co-ordinated and info correlated. KRCA now has three confirmed Red Data List amphibian, rendering it the highest concentration of rare amphibia on the Cape Flats, namely the Cape Rain Frog (Breviceps gubosus), Cape Platanna (Xenopus gilli) and of course the Micro Frog (Microbatrachella capensis). With now more than 283 indigenous species of flora recorded and a stunning new addition of one of South Africa’s rarest geophytic orchids, Disa barbata, the future of KRCA has never before looked as “Golden” as it does now.

Not to mention the growing relations with parties such as CREW, SANBI, KEW, VWS and CapeNature. Along with the “ground bound” guidance of one of the world’s leaders in biodiversity conservation the City of Cape Town Nature Conservation, I believe the KRCA is on its way to stardom.

With short notice I could not possibly convey all that makes this place shine, all that has happened and all that is happening but this short piece should give you enough to let your imagination tell the story! A very special thanks must go out to Gold Circle for their generous support and understanding in what must sometimes seem like a “greenies dream”, know you are investing in much more than peoples opinions and emotions, tying themselves to trees...

THANK YOU.

Also from the KRCA staff. A big thank you to our predecessors. Your Knowledge and support have been invaluable to us in conserving such a precious remnant. No names mentioned, but if you’ve put your name on paper with KRCA mentioned or said the name with excitement, you know who you are. All this said there are still many challenges that still lie ahead in conserving this gem and maintaining its biodiversity.

So to come to a short and sweet, oh so sweet close, more than 50% of the Port Jackson and Rooikrans have been removed with the rest fast on its way out, of course with special care. And Ross, your Clifforia ericifolia are safe.

For more information or if you would like to get involved you can contact us on: 021 700 1843 (office); mayas@goldcircle.co.za (email); or sign up to the Friends of Kenilworth Racecourse Conservation Area by sending an email to fkrca-subscribe@yahoogroups.com.

Otto Beukes
(KRCA Field Assistant & Nature Conservation Student)
Birthday Calendar

has produced a birthday calendar for the Harmony Flats group. The Calendar is an awareness tool that we hope will educate many people about the Harmony flats working group and their role in conserving the very rare and unique plants that exist on this small and highly threatened reserve. The calendars (size 297 mm × 420 mm) will be on sale for R70.00 a calendar at the CREW office in Cape Town at the Kirstenbosch Research Centre. Contact Wendy Paisley on tel: (021) 7998751 or e-mail: paisley@botanicalsociety.org.za. It will also be available at the SANBI Bookshop, situated at the National Herbarium Building in Pretoria, tel: (012) 843 5000/1, fax: (012) 804 3211, e-mail: bookshop@sanbi.org