

EDITORIAL

Well, we are on to the third newsletter already! It has been quieter on the seed collecting front with only one trip into the Sperrgebiet. But as always, there was no shortage of other work to do. An exciting bit of news is the description of a new species of *Lotononis* that was discovered by the MSBP in 2005. A visit to the MSB and other institutions in the UK was another exciting event well worth it – read all about it below! There has not been any negative feedback on the newsletters and I am assuming that they are therefore well received. There haven't been any contributions to the newsletter either. Reasons for this may be, that the few conservation practitioners in the country are already contributing to one of the many other newsletters around or feel that their work does not relate to seed conservation. But, I remain hopeful. Happy reading!

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SEED COLLECTING

It has been quieter on the seed collecting front since the last newsletter in August 2008. Only one collecting trip was undertaken into the prohibited diamond mining area, the Sperrgebiet, from 13 to 25 October 2008. A total of 35 seed collections and an additional 22 herbarium specimens of species that were not seeding, were made. Of the seed collections, 29 were new to the MSB and thus duplicated there.

Rainfall in the area had been very variable and patchy, so that there was a big difference in the condition of the vegetation throughout the Sperrgebiet. Overall, however, it was much better than the year before.

We firstly visited the Schakalsberge where we were almost too early, with a lot of plants still flowering. among the interesting species collected here, were *Wahlenbergia erophiloides* (Campanulaceae) an endemic species restricted to south-western Namibia. On our way there, we found a population of *Lapeirousia barklyi* (Iridaceae) that was in perfect condition for seed collecting. The near-endemic species *Manulea minuscula* (Scrophulariaceae) was particularly abundant in small depressions on the gravel plains.



Lapeirousia barklyi



Gnidia suavissima

From the Schakalsberge we continued further east towards the dune belt and Daberas Vley. The vley was dry, but an outcrop of blue dolomite in the dunes looked interesting. The stiff walk up a dune face to reach the dolomite, proved to be worth it! Here we found two species for which only one very poor specimen exists in the National Herbarium in Windhoek. *Gnidia suavissima* (Thymelaeaceae) is known from the south of Namibia and the Northern Cape of South Africa.

Only one sterile specimen found in the early 2000's near the



Gnidia suavissima

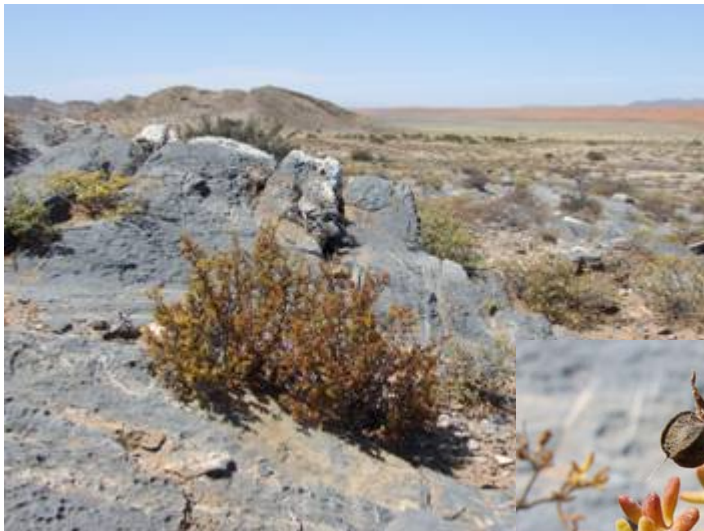
Skorpion mine, is housed at the herbarium in Windhoek. The rather unassuming, much-branched, low shrubs were clinging onto steep dolomite slopes – and they were flowering! At least we got some photographs and good specimens, but will have to return for seed later. *Pteronia anisata* (Asteraceae) is another species that is known from the Northern Cape with only a very small specimen from the northern Sperrgebiet in the Windhoek herbarium. On the rocky hill here, the shrub was quite common and just starting to flower. Again we could get better specimens, but no seed.

After all the excitement of Daberas Vley we continued on to the Aurus mountains. Quite a number of species on our target list were recorded for this mountain range. Before entering the Sperrgebiet we met with the Ministry of Environment and Tourism's chief warden for the area, Mr Trygve Cooper, who explained the routes and interesting areas to us. He offered us the observation huts at the Aurus mountains to set up camp. This turned out to be the best decision we could make! In the 6 days we stayed here, we had from dense fog, light rain, extreme heat to strong, chilly winds – all of which are most uncomfortable if you have to stay in a tent! But the plants and scenery made up for the lousy weather. We could add one more species on Namibia's threatened plants list to those collected and banked. The rather large population of *Aloe erinacea* (Asphodelaceae) had



Aloe erinacea

flowered profusely and, with a bit of scrambling up and down slippery, gravelly hill sides, could collect seed from at least a 100 plants. After psyching ourselves up for about 3 days, we decided to climb to the summit of the mountain. It is quite amazing how many different species one can find there. We were hoping to get seed of *Holothrix filicornis* (Orchidaceae) which was reported to be at the Aurus summit. After a long search we did find a few plants, but these were sterile with no signs of them having flowered in the past season.



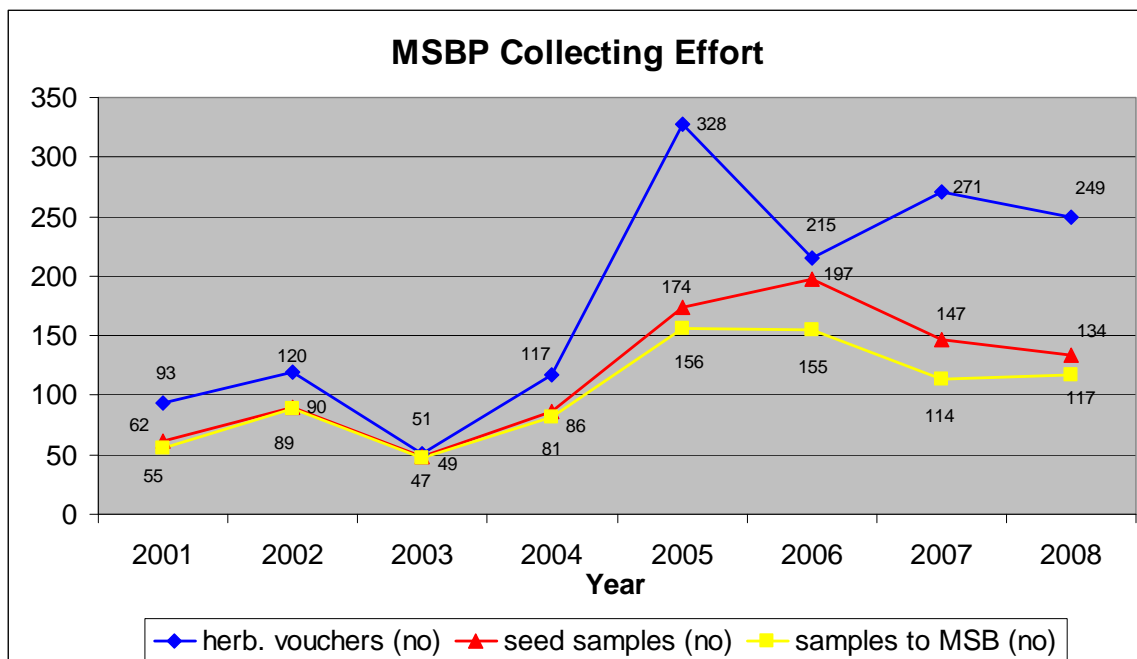
From the Aurus mountains we returned right back south to the Obib fountain area. This was a bit of a let down because there seemed to have been less rain here and therefore not much to collect. I did, however, see the endemic *Zygophyllum schreiberianum* (Zygophyllaceae) for the first time.



Zygophyllum schreiberianum

This species is atypical for the genus in that it has three-lobed leaves, whereas most other species have two-lobed leaves (as the name would suggest). The shrubs stand out from the rest of the vegetation by their yellow-green-reddish colour.

There were also some seed to be collected and we ticked off another one of our targets. We found more *Pteronia anisata*, which is not surprising, since we were just east of Daberas Vley with only a dune belt separating the two localities.



REHABILITATION WORK

In the last newsletter we reported that negotiations were underway to extend the agreement with Namdeb Diamond Corporation for rehabilitation of mined areas at the Bogenfels and Sendelingsdrift sites. Due to the worsening global economic climate, this collaboration had to be scaled down. Namdeb agreed to make funds available for further research on *Salsola* re-establishment at Bogenfels. *In situ* re-seeding in wind shelters has not produced any results thus far and the only option seems to be the cultivation of seedlings with eventual transplanting into the disturbed areas. A trial to raise seedlings at the National Botanic Garden in Windhoek with

the aim of transplanting seedlings in 2010, has started. Initial seed germination was zero, but after some advice from Rosemary Newton at MSB, a fresh attempt will be made.

The seedlings and cuttings of *Juttadinteria albata* planted at Sendelingsdrift seem to be doing well. In particular the plants raised from seed looked good in October. The area had some rain after planting and watering was stopped. We will keep monitoring this trial.

A trial to transplant *Adenia pechuelii* (elephant's foot) was started at Valencia in November 2008. First indications are that, although logistically difficult, translocation of elephant's foot can be successfully done.

NEW SPECIES DESCRIBED

In 2005, on a trip to the north-west of Namibia, the team found an unfamiliar looking legume next to the road. Back at the herbarium in Windhoek, we were unable to identify this specimen. We did narrow it down to possibly being a species of *Lotononis*. It was our luck, that Ben-Erik van Wyk, world authority on this genus, visited the NBRI



shortly after that. I

confirmed, that this was definitely a *Lotononis*, and

that it was definitely a new species. I could not believe it! The population of plants was so obvious and there were quite a number of individuals. Why had nobody picked this up before? To make a long story short: *Lotononis macroloba* B.-E van Wyk & H. Kolberg has now been described and published in the South African Journal of Botany 74,4:750-753 (2008).



VISIT TO THE UK

In September the MSBP-Namibia team travelled to the U.K. The main aim was a visit to the MSB at Wakehurst Place and the library and herbarium of the Royal Botanic Gardens at Kew, London. We had some discussions on the possible continuation of the MSBP after the programme ends in its current form in March 2010. Of particular help were discussions with the technical staff at MSB on the use of the Rotronic seed moisture meter. This information was passed on to the NPGRC in Windhoek so that they can now make full use of this equipment donated to them by the MSBP. We also spent some time in Oxford with Denis Filer, developer of the BRAHMS (Botanical Research and Herbarium Management System) software, to receive training on using this programme to manage our seed collection data and exchange of this with the MSB in the U.K. During a short discussion with Steve Davis, the co-ordinator of the SEPASAL (Survey of Economic Plants of Arid and Semi-Arid Lands) project at Kew it was agreed, that the information in the SEPASAL database needs to feed back into the collecting programmes of the MSBP. The SEPASAL project was assisted with funding from the MSBP to obtain more information on plants of economic value, one of the three focus areas of the MSBP globally (endemic, endangered,

economic). The responsible persons at Kew are now looking into how this information can become more useful for MSBP partners. We came back home with a lot of information and new insights that should make our workload somewhat lighter.

AWARENESS

After our seed collecting trip into the Diamond Area, we were invited to make a public presentation in the town of Oranjemund on 28 October. This was part of a series of talks organised by Namdeb Diamond Corporation in celebration of the centenary of the discovery of diamonds in Namibia. The presentation titled "The Millennium Seed Bank Project and its contribution to the rehabilitation of mined areas" was well attended and keen interest was shown in the work we are doing with Namdeb.

At the end of February another talk will be given to NBRI staff on the benefits of the MSBP to NBRI and special achievements of the project in Namibia.

RIO TINTO – RÖSSING URANIUM LIMITED – NBRI – KEW PROJECT

The project between Rössing mine and the NBRI has come to an end. Sonja Loots of the NBRI is compiling the final report and the MSBP-Namibia has contributed to this. The main aim of the project was the management of biodiversity by RUL on their concession area and focused on the red-data species *Adenia pechuelii* and *Lithops ruschiorum*. Assessments of these species were done in the mine area and nationally. The MSBP contributed through identification of target species for seed collecting; production of a collecting guide for mine staff; training of mine staff in seed and herbarium specimen collection; seed collection, processing and banking and identification of herbarium specimens collected by mine staff.

PLANS FOR FEBRUARY to AUGUST 2009

Rains in Namibia have started late (in most places late in January). Some areas still have not had sufficient rain and we will have to wait a little longer before we can finalise any collecting trips for this year. In principle, we have planned to visit the central north, central south, south-east and north-western coast.

Many species (more than 600) remain on our target list and most are to be found scattered across the country. This means that we will have to travel many kilometres to reach a few target species. To make collecting more efficient we will have to look at other species as well to try and make our target. We have also provisionally targeted grasses, because even with a little rain some grasses will still flower and set seed.

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