

# Natural Science Collections Facility

Report to the  
Department of Science & Technology

01 March 2017 – 30 September 2017



science  
& technology  
Department:  
Science and Technology  
REPUBLIC OF SOUTH AFRICA

**SANBI**   
Biodiversity for Life  
South African National Biodiversity Institute

## Contents

1.	Rationale and Scope .....	3
2.	Aim and objectives .....	4
3.	Progress: 1 March 2017 – 30 September 2017 .....	6
4.	Financial analysis.....	11
5.	Financial information .....	Error! Bookmark not defined.
6.	Summary and assessment .....	12
7.	Approval.....	Error! Bookmark not defined.

## 1. Rationale and Scope

- Research collections are essential for all countries with scientific enterprises, and they should be considered as large scale, global research infrastructure. South Africa has an estimated 20 million objects or specimens representing over 100,000 different species in natural science collections.
- Natural science collections and the data associated with these are a crucial resource for a wide range of society both nationally and globally, including researchers, environmental assessment consultants, land use managers and planners, farmers, bioprospectors, students, learners and decision-makers.
- South Africa's natural science collections are managed in a highly fragmented and largely isolated environment and there is no common strategy or approach to research which means that their full potential as a national research infrastructure is not being realised. In addition, the specimen data are largely inaccessible, which causes delays in decision-making or poor decision-making relating to sustainable development and sustainable harvesting of natural resources, both of which have considerable economic impacts. Inaccessible data also limits their use in large scale, multi- and transdisciplinary studies.
- The NSCF aims to address this situation, which will have positive impacts on research in numerous fields, on the economy through providing critical information for agriculture, fisheries, pest control, alien invasive management, natural products, and on society which benefits from biodiversity in virtually all aspects of their life.
- The NSCF' scope is limited to preserved plant, animal, fungi, palaeontology and geology collections, and during this phase only those institutions that have such collections that are actively managed for research purposes and that are accessible to the global research community in terms of both material and data are included. This is in line with the requirements to be considered as national research infrastructure. Four national museums, under the national Department of Arts & Culture, five provincial museums under the Eastern and Northern Cape Department of Sports, Recreation, Arts & Culture, one municipal museum, three science councils, and three universities are involved in the NSCF at the moment. For the herbaria, the participating institutions were limited to the "big 6 collections" as identified in the NRF report of 2011. This limit was required because of the large number of small herbaria scattered across South Africa (over 80 of these), and the extent to which they meet the requirements for qualifying as research collections at this stage is limited. In order to be able to establish the NSCF and to achieve outputs and outcomes in the short term, a phased approach is essential, with the major institutions participating initially, and in future, a broader approach can be considered.
- The NSCF is a distributed network of institutions that hold natural science collections, with a Central Co-ordinating Hub hosted at SANBI in Pretoria. SANBI is responsible for the overall implementation of the project plan and management of the budget allocation for the NSCF from the DST. The individual institutions continue to be supported by their existing structures, and continue to report to these but will collaborate to meet the objectives of the NSCF, and will receive support in order to enable this.

## Expected outputs, outcomes and impacts

Outputs	Outcomes	Impact
<ul style="list-style-type: none"> <li>Well managed, accessible and secured collections of biological specimens</li> </ul>	<ul style="list-style-type: none"> <li>Increased research and education outputs in a range of fields, by national and international scientists</li> </ul>	<ul style="list-style-type: none"> <li>Increased knowledge of South Africa's past and present biodiversity for the benefit of all of society;</li> <li>International recognition for SA collections</li> </ul>
<ul style="list-style-type: none"> <li>Integrated and openly accessible specimen data sets, including images of specimens</li> </ul>	<ul style="list-style-type: none"> <li>Increased research and education outputs in a range of fields; inclusion of wide range of species (including fossils) in decision-making for development</li> </ul>	<ul style="list-style-type: none"> <li>Sustainable development and use of biodiversity;</li> <li>Involvement of broader society in decision-making</li> </ul>
<ul style="list-style-type: none"> <li>Postgraduates;</li> <li>Collection based staff upskilled;</li> <li>School learners education programmes</li> </ul>	<ul style="list-style-type: none"> <li>Increased number of postgraduates graduate; upskilled and qualified collections-based staff;</li> <li>school learners' education enhanced and interest in science and biodiversity increased</li> </ul>	<ul style="list-style-type: none"> <li>Young researchers qualified for range of positions inside and outside collections and academia;</li> <li>Skilled and qualified staff; motivated staff;</li> <li>Improved marks in life sciences; increased number of students in science</li> </ul>
<ul style="list-style-type: none"> <li>Services and tools for the identification of biological specimens, including contributions to DNA barcode reference library</li> </ul>	<ul style="list-style-type: none"> <li>Improved service for the identification of biological specimens</li> </ul>	<ul style="list-style-type: none"> <li>Rapid and accurate identification of materials for enforcement, import and export, public health, conservation</li> </ul>
<ul style="list-style-type: none"> <li>Improved public understanding of biodiversity, its importance for human well-being and for national and cultural identity</li> </ul>	<ul style="list-style-type: none"> <li>Society participates in and contributes to collection and biodiversity related activities; cross cultural appreciation for varied values for species</li> </ul>	<ul style="list-style-type: none"> <li>Biodiversity and collections viewed as national assets and treasures; social cohesion; citizens empowered to engage in decision-making on biodiversity issues</li> </ul>

### Duration of the contract

The NSCF falls within the South African Research Infrastructure Roadmap programme of the Department of Science & Technology. The South African National Biodiversity Institute (SANBI) has been contracted by the DST to co-ordinate the implementation of the NSCF. The contract between SANBI and the DST is from 24 February 2017 to 31 March 2020.

## 2. Aim and objectives

The overall aim of the NSCF is to ensure that ***collections and associated data are used for high quality research and decision-making to address issues of socio-economic importance***

In order to realise this aim, the NSCF has five strategic objectives.

- SO 1. Collections (=research infrastructure) secured and accessible physically and virtually for research
- SO 2. Data from specimens in collections accessible and used for managing collections, research and decision-making
- SO 3. Research on collections and associated data addresses issues of national and global relevance
- SO 4. Collections and associated research provides services to identify biological specimens for a range of stakeholders including in the agriculture, health, environmental management and academic sectors
- SO 5. Collections used for serving broader society through education, citizen science and public understanding projects with emphasis on inspiring young scientists and promoting South Africa's unique biodiversity assets.

In order to achieve these objectives the following enabling strategies will be critical:

1. Transform the current fragmented natural science collections landscape by establishing the NSCF with participatory planning, and collaborative implementation, monitoring and reporting processes and systems.
2. Ensuring that appropriate capacity to curate collections, manage data and research the collections is available and well qualified staff are retained.

In the next three and years (2016/17; 2017/18; 2018/19 and ), the main focus will be on establishing the NSCF, including the Co-ordinating Hub, Working Groups and governance structures and to ensure that the new approach for a single facility is operational. There will also be a focus on developing policies, procedures, standards and workflows across institutions, and establishing mechanisms for monitoring of implementation of policies, procedures and standards, and monitoring use of the collections and the associated outputs and outcomes. Collection storage facilities, security and research equipment will also be upgraded where this is strategic.

### 3. Progress: 1 March 2017 – 30 September 2017

## NATURAL SCIENCE COLLECTIONS FACILITY Progress Report: 1 March – 30 September 2017

	STRATEGIC OBJECTIVE	3 year Outcome / Objective	DELIVERABLES	Progress to 30 September 2017
<b>1</b>	<b><i>Collections (=research infrastructure) secured and accessible physically and virtually for research</i></b>	i. Inventory of collections on the NSCF website	Website, with details of all publically accessible natural science collections	<ul style="list-style-type: none"> <li>• Terms of Reference for web developer advertised; contractor appointed (A2D24.COM), scoping completed and design drafted. Logo / branding options presented (see below). Website to be live by end of October 2017.</li> <li>• Existing list of all collections, size and scope circulated to institutions for updating.</li> </ul>
		ii. Collections that are at high risk / high priority secured/ collection facilities upgraded	6 orphan collections integrated into major collections; upgrade of storage environments for priority collections	<p>Agreed on the following orphan collections to be incorporated:</p> <ol style="list-style-type: none"> <li>1. UKZN to absorb Killick herbarium (Ezemvelo KZN Wildlife) – 2018/19</li> <li>2. SAIAB – absorption of Albany Museum fish collection: collection still to be incorporated (2018/19)</li> <li>3. ARC to absorb East London Museum fungi collection</li> <li>4. ARC to absorb University of Pretoria Eicker fungi collection (2018/19)</li> <li>5. National Museum: Visser Herpetology collection (2019).</li> <li>6. To be determined</li> </ol>
		iii. A virtual museum for global use by researchers and broader society initiated	Website with information and images for South Africa's species (5000 specimens digitised); scanned versions of catalogues, field notes and other documents relating to collections	<ul style="list-style-type: none"> <li>• Data WG has discussed specifications and workflows for images of specimens and scans of documents.</li> <li>• Assessment of number of specimens and documents has been completed.</li> <li>• Post of Analyst Developer to develop system for virtual museum advertised, but failed to recruit suitably skilled person.</li> </ul>

		iv. Tissue and DNA collections accessible for research	Basic facilities for storage of tissues and DNA linked to voucher specimens	<ul style="list-style-type: none"> <li>Assessment of freezer needs completed and included in budgets, and two freezers delivered to SAIAB.</li> <li>Plans for renovation of existing lab at National Herbarium to establish a DNA extraction facility and DNA / tissue collection for plants finalised</li> </ul>
		v. Common standards, procedures and monitoring programme for collections across institutions	Common set of documents for standards, procedures covering curation and access; monitoring process for implementation	
<b>2</b>	<b><i>Data from specimens in collections accessible and used for managing collections, research and decision-making</i></b>	i. Standards, processes and workflows for data capture, verification, upgrading and integration across institutions	Set of documents finalised and adopted by participating institutions	<ul style="list-style-type: none"> <li>Discussions initiated at Data Working Group meeting; existing documents from institutions being gathered .</li> </ul>
		ii. Verification and upgrading of specimen data for vertebrates (mammals, birds, reptiles, fish, amphibians), fungi and two plant families	Estimated 600,000 records updated, corrected and accessible	<p>Agreement on the following:</p> <ul style="list-style-type: none"> <li>Animals: start with reptile and amphibian data sets as a pilot and to develop protocols and workflows. Workplan developed. Assessment of extent of reptile and amphibian data sets completed.</li> <li>Macrofungi data to be upgraded.</li> <li>Karoo fossil data to be upgraded.</li> <li>2 plant families to focus on still need to be finalised.</li> </ul>
<b>3</b>	<b><i>Research on collections and associated data addresses issues of national and global relevance</i></b>	i. Large, collaborative and multidisciplinary flagship research project based on the collections and associated data: proposal	Project proposal and plan developed	
		ii. Accelerated description of new species where these are required for improving scientific quality of collection / strategically important research activities	Minimum of 60 new species described	<ul style="list-style-type: none"> <li>Monitoring and reporting template for the number of new species described developed and circulated for ongoing population by participating institutions. To date:</li> <li>36 new species described: <ul style="list-style-type: none"> <li>8 new species and 1 new genus of snail described (KZN Museum)</li> </ul> </li> </ul>

				<ul style="list-style-type: none"> <li>○ 15 new species of beetle (Coleoptera) and one Hymenoptera species, 13 grasshopper (Orthoptera) described (ARC)</li> </ul>
		iii. Increased use of collections for research and capacity development	Minimum of 6 international scientists using collections (in addition to the current number of 100 per year)	<ul style="list-style-type: none"> <li>● Call for applications for travel grants compiled and approved by SANBI CFO.</li> </ul>
		iv. Upgraded research equipment and facilities at selected collection institutions	Equipment purchased and used by researchers	<ul style="list-style-type: none"> <li>● Priorities discussed and agreed on by the Co-ordinating Committee.</li> <li>● Quotations for various items obtained by participating institutions.</li> <li>● Equipment purchases included in the Schedule of Payments for the Collaboration Agreements with 7 institutions (2 signed)</li> </ul>
<b>4</b>	<b><i>Collections and associated research provides services to identify biological specimens for a range of stakeholders including in the agriculture, health, environmental management and academic sectors</i></b>	i. Systems for monitoring identification services provided and for measuring impacts of this service	Database of specimens identified; purpose of identification; estimated 15000 specimens identified for agriculture, health, environmental management, researchers	<ul style="list-style-type: none"> <li>● Monitoring and reporting template developed and circulated to participating institutions for populating.</li> <li>● 531 specimens identified for clients (Durban Natural Science Museum, KZN Museum, ARC). Purpose of identifications: pest monitoring, phytosanitary inspections, biocontrol of weeds, research and postgraduate projects, food industry, diamond mining industry, conservation planning, identification of lice outbreak at a school, authors of books, general interest, birdwatchers (clients include: Ministry of Agriculture Namibia, Ezemvelo KZN Wildlife, DAFF, eThekweni Municipality)</li> </ul>
<b>5</b>	<b><i>Increased public engagement and understanding in relation to the collections and</i></b>	i. NSCF website, with pages relevant for public, with relevant information and links to virtual museum	Website established and accessible; updated on at least weekly basis; used by broader society	<ul style="list-style-type: none"> <li>● Website developers contracted;</li> <li>● Information compiled for website.</li> </ul>



<p><i>discoveries based on these to inspire learners, students and citizen scientists and increase appreciation for South Africa's unique biodiversity assets.</i></p>	<p>ii. Outreach activities</p>	<p>8 events that promote collections; 4 school programmes using collections; 2 exhibits promoting collections; 2 popular articles on collections / NSCF / SA biodiversity</p>	<ul style="list-style-type: none"> <li>Exhibition area included as part of the new NSCF Hub building plans.</li> <li>NSCF presented at the ZSSA/ESSA conference, the BIM-FBIP Forum and at the international Society for the Protection of Natural History Collections (SPNHC) in Denver, Colorado by Bernhard Zipfel (June, 2017).</li> <li>Brochure for the NSCF developed and printed.</li> </ul>
	<p>iii. Develop and implement a branding and marketing strategy for the NSCF and collections</p>	<p>Marketing and branding plan documented, with activities, products, timeframes and costing; activities initiated in line with plan</p>	<ul style="list-style-type: none"> <li>TORs developed and advertised for branding for website. Contract awarded as part of website development; will be done by end of October 2017</li> </ul>

## ENABLING STRATEGIES

<p><b>1</b></p>	<p><b>Transform the current fragmented natural science collections landscape by establishing the NSCF with participatory planning, implementation, monitoring and reporting processes and systems.</b></p>	<p>i. NSCF staff appointed: Project Manager; Co-ordinators for Curation; Data; Capacity Development; and Outreach and Communication; Administrative Assistant</p>	<p>Functioning Co-ordinating Hub</p>	<ul style="list-style-type: none"> <li>Project manager post advertised three times. First two rounds failed to identify suitable candidate. Third round of short-listing underway.</li> <li>Working group Co-ordinator posts x 3 advertised – short-listing underway (selection committees include external members from three participating institutions)</li> <li>Contract Director Zoology post advertised to replace M. Hamer so that she can focus on NSCF work.</li> </ul>
		<p>ii. Documentation for governance and operations of NSCF Co-ordinating Hub (TORs, guidelines, processes)</p>	<p>Finalised and approved documents that clarify operations of the NSCF Co-ordinating Hub, supported by Steering Committee, Co-ordinating Committee</p>	<ul style="list-style-type: none"> <li>Governance structures and TORs document developed, circulated for comment, discussed by Co-ordinating Committee and revised.</li> <li>Co-ordinating Committee established and functional (2 meetings - February and May; next scheduled for October at NSCF Forum).</li> <li>Advised to replace Steering committee with Advisory Committee.</li> </ul>
<p><b>1.1.</b></p>	<p><b>Establishing the Co-ordinating Hub and governance structures and mechanisms for planning, implementation,</b></p>	<p>iii. Steering Committee, with TORs for NSCF, meeting at least once per annum</p>	<p>Steering Committee support and agreement on Strategic Objectives, Deliverables and Budget</p>	<ul style="list-style-type: none"> <li>SANBI CEO advised that decision-making authority lies within SANBI and not a Steering Committee. She suggested that there should therefore be an Advisory Committee.</li> <li>Membership to be confirmed</li> </ul>

	<p><b>monitoring and reporting for the NSCF</b></p>	<p>iv. Co-ordinating Committee (managers or representatives from each participating institution) established; TORs developed; meeting at least quarterly basis to finalise objectives, activities, targets and resources, to monitor progress and provide information for reporting</p>	<p>TORs and operational plan finalised; minutes from meetings; objectives included in institution Annual Performance Plans (APPs)</p>	<ul style="list-style-type: none"> <li>• Co-ordinating Committee established and functional (2 meetings - February and May).</li> <li>• MoU template drafted and signed by SANBI and Eastern Cape Department of Sports, Recreation, Arts &amp; Culture.</li> <li>• Collaboration Agreement drafted and signed by two institutions (Ditsong, SAIAB), and one Agreement is pending (Iziko Museum), and four Agreements have been drafted (East London Museum, PE Museum, Albany Museum, ARC / OVI).</li> </ul>
		<p>v. Five Working Groups, with Terms of Reference (TORs), meeting at least quarterly, detailed implementation plans and reports on progress against targets.</p>	<p>Objectives, activities and targets for each Working Group documented, with implementation plan; targets met</p>	<ul style="list-style-type: none"> <li>• Working Group TORs developed.</li> <li>• Membership with representatives of participating institutions finalised.</li> <li>• First meeting of Data WG held 16 August.</li> </ul>
		<p>vi. NSCF Co-ordinating Hub offices established (interim for 2 years, with only moveable assets purchased); initiation of the construction of the NSCF Co-ordinating Hub building</p>	<p>Co-ordinating Hub staff accommodated on temporary basis; design, authorisations and procurement for construction of new building at SANBI</p>	<ul style="list-style-type: none"> <li>• Design for new building finalised and specifications developed; approved by SANBI's Bid Specification and Adjudication Committees.</li> <li>• R7.8 million allocated for the building from SANBI's infrastructure budget.</li> <li>• EIA required before construction can commence.</li> </ul>
<p><b>1.2.</b></p>	<p><b>Transformation of natural science collections: focus on changing culture to ensure that all staff support the NSCF and work towards a national rather than individual agenda</b></p>	<p>vii. NSCF Forum (every second year), for all collection institution staff to develop a new culture</p>	<p>NSCF Forum held to launch NSCF; all staff understand the aim and objectives</p>	<ul style="list-style-type: none"> <li>• <b>Forum:</b> Dates finalised, venue booked, programme drafted. Scheduled for 17-20 October, in the KZN Drakensberg (Alpine Heath Resort). This Forum will serve as the official launch of the NSCF. 164 delegates have registered and 12 guests accepted for the launch.</li> <li>• <b>Presentations on the NSCF and discussion sessions</b> done for all staff at National Herbarium, KZN Herbarium, Compton Herbarium, Bolus Herbarium, Bews Herbarium, Ditsong Museum, Iziko Museum, KZN Museum, Durban Natural Science Museum, East London Museum, Port Elizabeth Museum, Amatole Museum, Albany Museum, SAIAB, ARC-PPRI Biosystematics.</li> </ul>

		viii. Change management / leadership coaching for managers to support the development of a new culture	Managers from participating intuitions understand changes required for implementation of NSCF and achieving targets	<ul style="list-style-type: none"> <li>• TORs for change management consultants developed and advertised. First round failed to attract submissions that were appropriate to needs and within budget.</li> <li>• Re-advertised contract after revising TORs. Evaluation of submissions to take place.</li> </ul>
		ix. Common standards and job descriptions for staff in collection institutions to professionalise collections posts	Common post titles, job descriptions and performance standards for staff in collection institutions	<ul style="list-style-type: none"> <li>• Working Group to deal with this established</li> </ul>
<b>2</b>	<b>Capacity development</b>	i. Support for postgraduate students researching the natural science collections.	New postgraduate students using collections /data for their projects	<ul style="list-style-type: none"> <li>• 4 MSc bursaries awarded for students working on collection material. This was done through an open call, and applications were assessed by three members of the Co-ordinating Committee / delegates. 1 African Female, 1 African male, 1 White Male and 1 White Female were awarded bursaries.</li> </ul>
		iii. Capacity development for collections and data management staff: grants for young staff in collections to attend the international Society for the Protection of Natural History Collections (SPNHC) conference or the Taxonomic Data Working Group conference	International networking for young staff; additional skills and innovations for collections and data management to which young staff exposed	<ul style="list-style-type: none"> <li>• Call developed for staff to travel to international conference related to collection management / curation. Only one application received and this was not considered to be in line with the scope of the call.</li> </ul>

#### 4. Financial analysis

The first grant of R15 million was transferred to SANBI at the end of February 2017. Expenditure to date is R1, 815,812, and the balance at 30 September 2017 is R13 ,622,629. An additional R11, 479, 320 has been committed through the receipt of invoices from suppliers, either to SANBI or to the collaboration partners with which SANBI has signed a Collaboration Agreement, or through travel agent bookings that have been made but SANBI still needs to be invoiced. There are other expected payments to partners as soon as the Collaboration Agreements are signed and the timing of this is largely outside of SANBI's control. These payments could be due at any time in October or November and amount to R2,758,624, which could mean expenditure of R14,237,944 by the end of November, and a deficit of R615, 515.

We have accrued R478, 440 in interest, and allocation of these funds will be discussed by the Co-ordinating Committee but it is recommended that these funds be allocated to public displays and outreach activities which were underfunded in the original budget.

We expect to have exhausted the current budget by the end of October or November 2017.

### **Anticipated expenditure between November 2017 and 31 March 2018**

By the end of November 2017 we anticipate having finalised Collaboration Agreements with the ARC and KZN Museum, and for milestones on the existing Agreements to be reached and requiring additional payments. Five posts are expected to be filled by the 1 January 2018. The projected expenditure / contractual commitments by 31 March 2018 have been calculated at R14 million + R1.78 million for SANBI's overheads, which will provide R2.4 million for cash flow to cover salaries and operational costs until the 2018/19 grant is received.

## **5. Summary and assessment**

### **Construction of Co-ordinating Hub offices and DNA extraction facility:**

The design and specifications for the NSCF Co-ordinating Hub offices at SANBI were finalised and the tender will be advertised in the next week. The cost is estimated at R7.8 million and this will be covered by SANBI from its infrastructure budget. The building will house the 6 Co-ordinating Hub staff, have a meeting / training area and an exhibit area. The overall space is 427m<sup>2</sup>. A site near the service entrance to the Pretoria National Botanical Gardens has been identified for construction of the building and an Environmental Impact Assessment will be required before construction can commence. The anticipated completion date is the end of 2018. Renovation of a laboratory at the National Herbarium to establish a DNA extraction facility for South African plants forms part of the same tender but the cost of this will be covered by the NSCF budget. The cost is estimated at R500,000.

### **Governance structures:**

A document outlining the governance structures and terms of reference for each of these has been developed and reviewed by several stakeholders.

The Co-ordinating Committee has been established and met in May, with a second meeting scheduled in October 2017. The meeting reviewed the objectives, activities and targets, and the principles for budget allocations and the actual allocations.

The membership of the five Working Groups has been finalised, and the Data Working Group met in August, with a second meeting and a first meeting of the other Groups scheduled for October.

### **Agreements:**

A meeting was held with the Head of the Eastern Cape Department of Sports, Recreation, Arts & Culture and the Departmental Advocate to discuss the participation of the four museums that fall under this Department. The HOD indicated support for the NSCF, and a Memorandum of Understanding between SANBI and the Department has been developed and signed by SANBI and we are waiting for the HOD to sign.

A Collaboration Agreement has been finalised between SANBI and the Ditsong Museum and the South African Institute for Aquatic Biodiversity (SAIAB). The Collaboration Agreement has also been signed by Iziko Museum and is awaiting SANBI signature. Agreements with the Eastern Cape Institutions and the Agricultural Research

Council (ARC) have been drafted and are currently with those institutions awaiting approval by their senior management.

Calls for awarding MSc bursaries for students working on collections, for attending an international conference relevant to curation / collection management, visiting scientists to work on collections and postdoctoral grants have been developed. The MSc bursaries were awarded based on a scoring process that considered equity, relevance of project and motivation. Agreements with the four students have been signed and their progress will be monitored.

#### **Promoting the NSCF and internal communication:**

In order to promote the NSCF and its objectives amongst all staff, presentations were made by M. Hamer to most of the institutions. This gave staff an opportunity to ask questions and make suggestions. The NSCF was also promoted through presentations at the Zoological Society / Entomological Society Conference in July 2017 and the FBIP-Biodiversity Information Management Forum in August 2017, and at the international Society for the Promotion of Natural History Collections in Denver, Colorado in June 2017 by Dr Zipfel, Curator of the Palaeontology Collection at Wits. A short article on the NSCF was published in *Thola*, the Durban Natural Science Museum magazine and a brochure on the NSCF was been produced.

The NSCF will be launched at the NSCF Forum which will be held from 17-20 October 2017 in the KwaZulu-Natal Drakensberg. 150 staff from all levels have registered to attend the Forum and this represents about 75% of the staff at the participating institutions. Travel arrangements for them are being finalised.

A website is currently being developed for the NSCF. This will include a list of collections, experts, research projects, publications and present news about events and research findings.

An inner web for facilitating communication amongst all staff at participating institutions and for co-ordinating documents that are being developed and worked on by the Working Groups and for input for monitoring outputs is also being developed. The same company is also developing a logo and branding for the NSCF and this is about to be finalised.

#### **Monitoring system:**

A monitoring system for co-ordinating outputs from the participating institutions has been developed, and is being implemented, but at this stage only three institutions have completed the template on time. This may improve once an online system is developed.

#### **Challenges:**

There are several challenges that have been faced over the last six months. A major challenge has been recruiting staff for the NSCF, in particular a Project Manager. We are on the third round of advertising this post. The Working Group Co-ordinator posts were advertised in July and interviews are scheduled for October. However, delays in filling the posts mean that the posts will be offered as two year contracts because this is the time frame of the DST-SANBI contract.

The NSCF Lead position was proposed to be a secondment of the NSCF Champion, but SANBI's Board recommended that the work of the NSCF Lead be assigned to the Director, Biosystematics Research & Collections Initiatives, who had served as the NSCF Champion, and that a contract Director be appointed to take over her SANBI responsibilities. This process has not been finalised yet, which has meant that the Director has had to carry the NSCF management work on top of her SANBI responsibilities, and there has not been a full time

manager on the NSCF. We hope that this situation will be resolved by the end of 2017 and that a Contract Director will be appointed for the SANBI work.

The finalisation of the Collaboration Agreements is taking longer than anticipated. The Eastern Cape Department of Sports, Recreation, Arts & Culture is unsure about the level at which the agreements should be signed and suggested that this must be cleared through provincial treasury. Despite meeting with the HOD and Advocate in June, and following up several times on the matter, they have not been able to provide a decision. In the meantime the Agreements have been drafted for three of the Eastern Cape Museums, and they have developed specifications for the capital items they need and they have obtained quotes for these items.

Procurement of large capital items has been slow, but is underway and some of the institutions have initiated procurement processes for items such as freezers, cabinets, compactor shelving, and microscopes.

The Council for Geosciences has not attended meetings or participated in any of the activities and this may be related to a new staff member, and this matter may have to be taken up with more senior management. The Director of the National Museum in Bloemfontein, one of the major institutions, has been on suspension and a full forensic investigation is underway at the institution. This has limited the active participation of this institution although some of the staff are attending the Forum and they did attend the Data Working group meeting.

While the managers of the participating institutions have indicated strong support for the NSCF, the reality of implementation and the changes required still appear to be a challenge at some institutions. A contract to appoint consultants to assist with change management and organisational change is in the process of being awarded. It is also hoped that this will be the start of a process to improve leadership, morale, engagement, diversity and performance at the institutions – which were all issues identified in the NRF report of 2011.