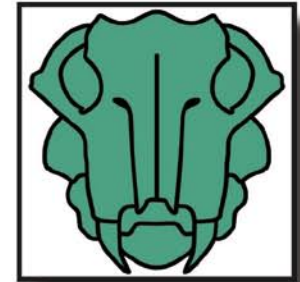


PALNEWS

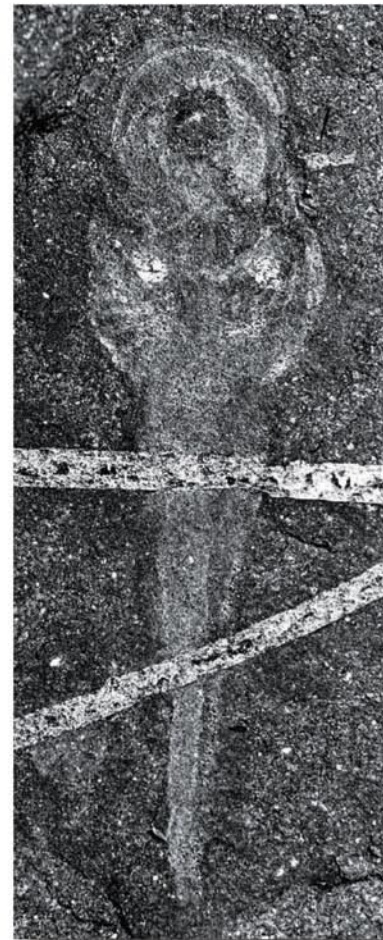
BIANNUAL NEWSLETTER OF THE PALAEOONTOLOGICAL SOCIETY OF SOUTHERN AFRICA

(HALFJAARLIKSE NUUSBRIEF VAN DIE PALEONTOLOGIESE VERENIGING VAN SUIDER AFRIKA)

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From the Editor	3		
News from:			
Albany Museum & Rhodes University		Sixth Extinction Revisted - John Anderson	25
Billy de Klerk	4	Worcester Exhibit - Eddie van Dijk	26
Rose Prevec	5		
Rob Gess	6	PSSA'06	
BPI, Wits, Johannesburg	7	Presidential Address	27
Citation for Mike Raath	12	Group Photograph	30
Council For Geoscience, Pretoria	17	Minutes of the BGM - Lucinda Backwell	31
Iziko SA Museum		Papers presented	34
Roger Smith	18		
West Coast Fossil Park		PSSA'08 announcement	36
Pippa Haarhof	20	Recent publications	37
Transvaal Museum		Links - useful websites	39
Francis Thackeray	20		
Heidi Fourie	21	PSSA members and friends - email	40
Around the world	22		
PAST	24	Jobs	41
		Next Deadline for News	41

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Front cover: (1) reconstruction of a shallow estuarine setting in the Devonian, based on evidence from the Witteberg Group. The painting (by Ms. Lindy Wright) hangs in the new Palaeogallery at the Albany Museum; (2) *Priscomyzon riniensis* (4.2 cm long) the World's oldest lamprey, found by Rob Gess at a Witteberg locality just outside Grahamstown. See his recent Letter in Nature (Gess, Coates & Rubidge, 2006; Nature 443:981-984). Photographs provided by Rob Gess.

EDITORIAL

Dear Friends and Members of the PSSA,

I hope you all had a peaceful Christmas and New Year, and have had a good start to 2007. As the new editor of Palnews, I have some large shoes to fill. Many thanks are due to Johann who, with his characteristic level of steady excellence, has been at the helm since 2001. With the help of Ludwig Döhne, he has steered Palnews through the transition to an electronic format - a new tradition that will be continued and hopefully developed in future issues.

I have made a few changes to the format, such as the inclusion of all your publication references in a separate list, and a new section highlighting web sites that may be of interest to the palaeocommunity. Please send me details of your favourite and most useful sites - the web is an increasingly powerful resource, but knowing where to look can save us all a lot of time.

You will note that this is rather a hefty Palnews - largely because it is a post-conference issue. It seems as if it was yesterday that Billy de Klerk and I were fretting about vegetarian meals and misbehaving Powerpoint projectors. Being a part of the organising committee of two for the PSSA'06 congress was a most challenging and rewarding experience, and it was wonderful to see so many of you here in Grahamstown. Included in this issue are the minutes of the BGM for your perusal, and the Presidential Address, in which Bruce Rubidge offers some sage and encouraging words on the state of palaeontology in SA. Also included, is a list of all the presentations given at the congress. As discussed among the Members at the BGM, the abstracts will appear in the next volume of *Palaeontologia africana* - an excellent step forward in improving the exposure of our Society's activities. I hope you will all support the initiative of the current organising committee to publish extended abstracts for PSSA'08 (p. 36). Based on the track record of the Cape Town

crowd, I think we can look forward to a congress to be remembered in Matjiesfontein!

Some big news for our small community is the retirement of Dr Mike Raath (p. 11). Mike, who is nothing short of an institution in South African palaeontology, will be sorely missed, and we are all hoping he will continue to lend his wisdom and experience to matters palaeontological. Despite his determination to enjoy a peaceful existence in the idyllic Cape, I suspect we will find ways and means of pestering him and keeping him busy!

For those of us planning to participate in broad, collaborative research projects, the future is looking rosy. We seem to be entering a new era in palaeontology in South Africa, with big funding opportunities becoming a reality through DST, NRF and PAST. We owe a great debt to a core group of our members, in particular to Bruce, for their tireless efforts to raise public and government awareness of the importance of SA's fossil heritage, and the study and conservation thereof. May the many meetings and delicate negotiations finally be rewarded with an injection of funding into our research and teaching institutions.

Many thanks to all of you who sent news of your activities. Having skipped my apprenticeship as Assistant Editor, I approached this first issue with some trepidation! I hope I have been able to do your contributions justice. This newsletter is your voice, so please feel free to contact me with any comments or suggestions for improvements.

Happy hunting (strictly in the palaeontological sense), and please keep in touch!

Best wishes
Rose

ALBANY MUSEUM & RHODES UNIVERSITY

- Grahamstown January '07

Billy de Klerk

PSSA'06 Conference

It was great to have had the opportunity of hosting the PSSA'06 conference in Grahamstown again. Last time was 12 years ago in 1994. I can easily wait another 12 years before our turn again comes up in Grahamstown. Although a lot of work it was very rewarding to see all the PSSA members again; particularly our members from abroad. I would particularly like to thank Rose Prevec for all her hard work and support in making sure PSSA'06 was such a success. We are now looking forward to the Western Cape experience at Matjiesfontein with John Almond and his crew on 2008!

On the financial side I can report the following. We received two very generous sponsorships from PAST and the NRF (each R10000) to help finance the travel and accommodation cost of our key-note speaker, Prof. Scott Sampson. In addition we received an advance of R5000 from The PSSA to kick start the conference. On wrapping up the finance for the conference we were pleasantly surprised to see that we had R13572 in the kitty. Once we have repaid our R5000 advance to the society, it will effectively mean that we made a modest profit of some R8500 on the running of the conference. This was not intentional as we had tried to make the conference as inexpensive as possible. These funds will certainly bolster the PSSA coffers and will be put to good use in the future. Rose and I are rather pleased with this result as we believe that the conference fees were kept as low as possible.

Shortly after the PSSA'06 conference in September a number of palaeontologists were invited by the Department of Science

and Technology (DST) to a meeting in Pretoria to discuss ways and means of promoting the science of palaeontology and also to stimulate more vigorous research in the science. This two-day meeting/workshop was held under the title of "African Origins Scientific Platform". Included in the group were palaeontologists from some other African countries like Ethiopia, Eritria and Tanzania as well. Essentially the DST wants the Palaeontological fraternity in Africa to come up with innovative strategies and projects to stimulate the public awareness of the science and also put forward ideas on how more students could be attracted to study palaeontology. They realise that we have an international edge in our Palaeontological heritage and we must use it to good advantage. As I see it, one of the main aims of the DST is to use Palaeontology, which generally does have a wide public interest and appeal, as a vehicle that can be used to draw young blood into science in general. A number of key recommendations were drawn up at the conclusion of the workshop and these are currently being evaluated by the DST. In essence the recommendations can be divided into two main areas - 1) to strengthen and support research conducted in the palaeosciences; and 2) to broaden public exposure of this work through outreach, education initiatives.

On the work front I can already see that 2007 is going to be an interesting, and outdoor active year. I have already received some five fossil reports that need to be checked out from the remote Transkei Wild Coast to the arid central Karoo. In addition I plan field seasons with colleagues from Wits in March and September. Anything to get away from the office and driving a computer!

Rose Prevec

The past six months have been really busy, between travels, field trips and organising the PSSA with Billy.

One of the great highlights of the year, was a three-week field trip to the well-known exposures of the Permian/ Triassic boundary at the Wapadsberg Pass, near Nieu Bethesda, with Prof. Bob Gastaldo (Colby College, Maine, USA), his student Sam Reid, Dr Johann Neveling and Prof. Marion Bamford and her two daughters, who were able to join us for the last leg of the trip. To our surprise and delight, we found a superb plant fossil locality, which will no doubt keep us busy for years to come. Three weeks spent out in the Karoo, in a cosy cottage on the farm Ganora, with a family of cute meerkats for company, was definitely not a great hardship, despite the howling wind and odd spot of snow.

I returned from the field to a flurry of activity to make ready for the PSSA. Billy and I were most grateful that the worst disaster was a dodgy Powerpoint projector. We certainly enjoyed seeing so many of you on our home turf.

Dr **Emese Bordy**, resident sedimentologist at Rhodes University, and I revisited a spectacular new Permian plant fossil site near Empangeni in KwaZulu-Natal in October, as part of a team effort to review the Emakwezini Formation and its associated coal and palaeofloras. We managed to hunt down a few other plant fossil localities in the area, which proved to be quite an adventure, requiring the assistance of armed guards and police escorts! No one can claim that palaeontology is dull... Many heartfelt thanks are owed to PAST for funding this project - what would we do without you! Emese and I have also been investigating some curious rooting structures from the lower most Elliot Formation just north of Queenstown, and are hoping we may find more evidence of the elusive late Triassic floras.

In November, I met up with Dr Conrad Labandeira (Smithsonian Institution in Washington) once again at the BPI, to continue our work on some really fascinating evidence of plant-insect associations from the Permian floras of Hammanskraal. The more we look, the more we find.

In December, Prof. **Marion Bamford** and I headed off to Brazil, courtesy of a prestigious Wits University Council Overseas Fellowship travel grant that was awarded to Marion for the establishment of collaborations with Brazilian palaeobotanists. Marion's two girls (Claire and Olivia) were able to accompany us, which made the experience all the more wonderful. We travelled to the town of Porto Alegre, in the southern most province of Rio Grande do Sul. Our hosts, Prof. Roberto Iannuzzi, Paulo da Souza and Marguot Guerra-Sommer at the Universidade Federale do Rio Grande do Sul (UFRGS), Dr. Tania Dutra of the Universidade do Vale do Rio dos Sinos (UNISINOS) and Sheila Monteiro from Universidade Federale de Santa Catarina in Florianopolis, and their many students and associates were very warm and welcoming, and our interactions have led to the identification of many areas of potential joint research and correlation with South African palaeofloras. Particularly exciting for me, was to see the type material of *Arberia*, one of the oldest and most curious fertile structures of the glossopterids. Many thanks to Marion and to Wits for an excellent start to what I hope will develop into a long-term relationship with the Brazilian palaeobotanical community.

Marion and I found Brazil to be a botanist's paradise, and particularly loved seeing *Araucaria* trees growing in the wild. One of my favourite things about Brazil, was the vending carts that dispensed *agua do coca* - the milk from green coconuts. It is nectar from heaven, especially when the temperature is hovering in the forties.

I am now nearing the end of my Rhodes Postdoctoral Fellowship, but hope to continue to eke out an existence as a Research Associate, thanks to the kind hospitality of Billy and the staff at the Albany Museum. There is just so much wonderful fossil material out there, and so little time in the day....



Marion, Roberto, Claire and Olivia working hard on some delicious extant botanical specimens at Florianopolis.



A magnificent specimen of *Arberia* from the Bainha locality.

This outcrop at beautiful Torres beach, in northernmost Rio Grande do Sul, can be directly correlated with the sandstones of the Clarens Formation, and the overlying Drakensburg basalts of the Karoo Basin.



Rob Gess

It has been a productive six months for Late Devonian studies in South Africa. I have been making good progress with my Ph.D. **Mike Coates** (my co-supervisor with **Bruce Rubidge**) from the University of Chicago came out in September to coincide with the conference in Grahamstown, and to look at all the fish material. To prepare for his visit I was kindly loaned the Rhodes Geology Department's largest lab, where I laid out all the old and (voluminous) new fish material from the Waterloo Farm locality. It covered every desk and cupboard surface in the room and even I was surprised, seeing it all in one place and time, how much I have collected. In itself this was a very useful exercise, allowing me to do some valuable sorting and cogitation. Going through it all with Mike was also invaluable. Having out someone of his calibre and with his experience in early vertebrates was a real privilege and I was able to clarify and verify a lot of things about which I had no one local to consult. It was an accelerated learning experience! Afterwards he came on the post-conference field trip and enjoyed seeing a bit of South Africa. Hopefully we'll be seeing more of him out here in the not too distant future.

Due to a Nature embargo I had to be very circumspect in my overview at the conference, regarding one of the most exciting new discoveries from Waterloo Farm. The 26 October edition of *Nature*, however, contained the description of *Priscomyzon riniensis* (Gess, Coates and Rubidge), the oldest known fossil lamprey in the world. As lampreys are the more accessible of the remaining two groups of jawless fish (lampreys and hagfish), they are often treated as surrogate gnathostome ancestors in developmental and phylogenetic studies and in the last couple of years have been the subject of more *Nature* articles than dinosaurs! Yet, having only a cartilaginous skeleton they make extremely sparse fossils and it has sometimes been assumed that their extreme specialisation for a predatory/parasitic

lifestyle must be a relatively recent phenomenon. Until 2006 only two (Carboniferous) species had been described, both of which, like modern lamprey juveniles, lacked the big sucker disc and circumoral teeth associated with modern forms. A Cretaceous lamprey from China was described in 2006, but though its general form was very lamprey-like, its mouth parts were not apparent. Now from South Africa comes a 360 million year old lamprey with the world's biggest (relative to body size) sucker disc - complete with circumoral teeth! Yippy! It must, incidentally be the earliest evidence for vertebrate parasitism, the little suckers having been feeding off other vertebrates' juices all this while, if not a lot longer. Following publication we've spent a lot of time managing the resultant international media frenzy and waves of reprint requests. Locally the new magazine, *Voyage of the Planet*, has a nice article.

2006 was such a rainy year that the all important road cutting collapsed and the road had to be closed again. Now the Roads Agency is back with a vengeance, determined to fix it once and for all, by essentially removing the unstable (essentially fossiliferous) portion of the hill. Fortunately they are proving highly co-operative and I have an ongoing consultancy with them, regarding the cutting. It may be possible to save a portion of the fishiferous lens *in situ*, but we are at least managing to rescue a reasonable sample of rock for careful, painstaking later research. In addition we're taking large rock samples from other promising lenses in the cutting, for later research - as they will not be available for study in 2008. As they rip the hill away there is always the chance of something totally unexpected turning up, and unlike in 1985 we're all ready for the possibility. I'm carrying out twice-weekly site inspections and sampling as they go. I have already got a couple of interesting odds and ends. I've explained everything to the workers on site and taken most of them to see the Museum display. I reward them with 2 litre Coca Colas whenever they do anything useful - like helping transport samples

or putting interesting looking chunks on one side. The Coca Cola technique is to be recommended to all palaeontologists working in heavy construction environments.

And then also, I'm working overtime to keep up to schedule with my Ph.D.!

BERNARD PRICE INSTITUTE FOR PALAEOLOGY

- WITS UNIVERSITY, JOHANNESBURG

The second half of the year is the teaching semester at the BPI Palaeontology as we fulfil our undergraduate lecturing commitments in the Schools of Geosciences and Animal Plant and Environmental Sciences. Despite this our staff have been active in numerous research activities, and of course the highlight has been the PSSA conference in Grahamstown which was attended by 8 staff and 12 students from the BPI.

Currently registered students are:

MSc

BOSHOF, P. Fossil coprolites in Plio-Pleistocene-aged cave deposits of South Africa.

FRANKLIN, R. The recognition, frequency and taxonomic association of pathologies from the Plio-Pleistocene aged site of Coopers D, Witwatersrand, South Africa.

MASON, R.A. A litho- and bio-stratigraphic synthesis of the Ecca-Beaufort contact in the Eastern Cape Province, South Africa.

PEREIRA, L.M. Restoring identity and context to human remains from Gauteng.

RENAUT, R. Reassessment of some key sphenophyte taxa from the Permian of South Africa.

RUTHERFORD, A.B. A multi-disciplinary sedimentological, stratigraphic and palaeoenvironmental appraisal of the Permian and Triassic Karoo strata in the vicinity of Thaba Nchu, in the

Free State.

VASCONCELOS, C. Proposal of a neotype for *Massospondylus carinatus* Owen (Dinosauria, Sauropodomorpha): the postcranial morphology and implications for prosauropod phylogeny.

DE KLERK, B. An osteological documentation of hybrid Wildebeest, and its bearing on Black Wildebeest evolution.

MOTHUPI, T. Damage on fossils from Plovers Lake cave that can be attributed to human activities.

VILAKAZI, N. An osteological comparison between bontebok, *Damaliscus pygargus*, and blesbok, *Damaliscus pygargus phillipsi*, and its bearing on the evolution of bontebok.

PhD

CISNEROS, J. The Triassic parareptile *Procolophon*: Cranial anatomy, variation, biostratigraphy and biogeographic distribution.

GESS, R. New insights into Gondwana Famennian biodiversity patterns - taxonomy, biogeography of a high latitude, west Gondwana ecosystem of the Witpoort Formation of South Africa (Cape Supergroup, Witteberg Group).

LACRUZ, R. The analysis of growth markings in enamel tissue of Plio-Pleistocene hominids of Africa.

SANDERSEN, A. A late Cretaceous biostratigraphy based on palynomorphs derived from southern African sediments.

NICOLAS, M. An assessment of vertebrate biodiversity changes through the Permo-Triassic Beaufort Group (Karoo Supergroup), of South Africa and its significance in terms of biological development, hiatus periods and extinction events.

STEININGER, C. The emergence of Early *Homo* and the extinction of *Paranthropus robustus*: environmental and faunal change in the Blaauwbankspruit of South Africa.

Juan Cisneros, Rodrigo La Cruz, Andrea Sandersen and Merrill Nicolas have all submitted their PhD theses and are currently awaiting examiners reports. All the BSc Honours students **Ceri**

McCrae, Helke Mocke, Mirian Tawane and Marc Blackbeard have successfully completed their exams and all are planning to continue with a masters degree in the new year. Most of them are still thinking about their research projects but Ceri has decided to continue her research on microfauna associated with owl pellets, looking mainly at postcranial elements. She says that she will continue to work, alongside Stephany Potze (Transvaal Museum), on chemical fossil extraction techniques. Their aim is to improve the speed and efficiency of fossil preparation, focusing on the use of different acids, bases and techniques. Samples taken from Permian- to the Plio-Pleistocene-aged deposits are being subjected to various tortures with corrosive substances in the name of science.

Fernando Abdala has had an active research year and is involved in several projects. Three projects are currently waiting to be published:

- the description of the world's oldest cynodont from the *Tropidostoma* Assemblage Zone of the Karoo Basin in collaboration with Jennifer Botha and Roger Smith;
- the re-description of *Platycraniellus elegans* from the *Lystrosaurus* Assemblage Zone and
- the record of a new cynodont taxon (one of the Diademodontidae) from the Lower Elliot Formation, in collaboration with Ross Damiani, Adam Yates and Johann Neveling.

New projects which are at an advanced stage include, among others, the description of the oldest therocephalians from the *Eodicynodon* Assemblage Zone, with Bruce Rubidge and Juri Van den Heever; the palaeohistology of traversodontid cynodonts from South America with Anusuya Chinsamy-Turan. Other projects which are progressing include a taxonomic study of the Bauriidae, the last therocephalian survivors, and a redescription of the postcranium of the basal cynodont *Procynosuchus*.

Lucinda Backwell continued excavating two Late Pleistocene South African sites in 2006: Wonderkrater, a peat mound that provides the pollen sequence on which South African vegetation history is based, and Heelbo, a remarkably dense large mammal mass death assemblage. In the second field season at Wonderkrater, the team (Zoe Henderson, Lyn Wadley, Louis Scott, Lloyd Rossouw, Stephan Woodborne) opened a 4 x 4 m trench on the margin of the peat mound. This revealed a spectacular stratigraphic sequence and paleosol with 60 *in situ* Middle Stone Age tools. A 2 x 2 m pit in the water table in the centre of the mound yielded charcoal and seeds, plus numerous well-preserved rhino foot bones on a white sand layer dated to 10 kya. At Heelbo, a 4 x 6 m area was opened to increase the sample size and expose the position of the fossils in the deposit. Different scenarios to explain the mode of death and accumulation of the fossil deposit were presented at the PSSA meeting in Grahamstown in collaboration with Christine Steininger, James Brink, Lloyd Rossouw, Johann Neveling and Lucy Pereira. The long-term actualistic experiment involving a modern eland carcass in an adjacent gully is providing interesting results concerning taphonomic agents at work on large mammals in this particular environment, including unexpected breakage patterns, preservation, dispersal and burial rates.

Removal of manganese and iron oxide deposits from the Plio-Pleistocene Coopers D faunal assemblage is ongoing. Numerous actualistic studies involving modern insects have been identified following chemical cleaning of the fossils, which revealed a number of unusual insect tracks and traces. This research will commence early next year in collaboration with Eric Roberts (Wits).

Study of fossil hair extracted from ancient hyaena coprolites from Gladysvale Cave is in the final stages of analysis. Collaborators include Don Brothwell and Matthew Collins (University of York), Dave Martill (University of Portsmouth) and Lee Berger (Wits). Lucinda joined Francesco d'Errico of the French CNRS at the

University of Bordeaux in December to study worked bone discovered by Lyn Wadley in Middle Stone Age levels at Sibudu Cave. They then moved to the Louvre in Paris to use a profilometer to analyse the wear patterns on early hominid bone tools from Swartkrans, Sterkfontein and Drimolen. The interferometer provides a new method of quantifying bone surface modifications, so is also being applied in an ongoing study of anthropically modified hominin remains globally. Part of the study has required compiling a large experimental and actualistic data base, comprising modern and fossil bones modified by various known agents.

Marion Bamford was on sabbatical for the first half of this year and spent much of the time in the field or overseas. She spent the whole of February in Argentina working on a Mesozoic and Tertiary fossil wood project with Dr Alba Zamuner of the University of La Plata to compare the woody vegetation and the time of dispersal and then relate these to the modern floras. She also visited the modern riverine forest along the La Plata River which is adapted to frequent and prolonged flooding.

With Greg Botha and David Cantrill (Swedish Museum of Natural History) she collected fossil wood and pollen samples from the Cretaceous deposits in Mkhuzi in April this year. This is part of a project looking at the southern hemisphere angiosperm floras.

In June she participated, as a member of a large multidisciplinary scientific team, in the Koobi Fora Field School, Kenya, collected seeds from the Laikipia Plateau, and taught the students how to do several vegetation transects. This was funded in part by the Leakey Foundation and PAST. A paper was presented at the Paleoanthropology Society meeting in San Juan Porto Rico in April this year by David Braun on their research at Koobi Fora.

For five weeks in July-August this year Dr Rosa Albert (ICREA and University of Barcelona) and Marion collected extensively

for modern plant material for phytolith analysis, and also soils to add to our reference collection. They also sampled for fossil phytoliths from three trenches (60 samples) to determine any differences in palaeovegetation. Their research at Olduvai has been presented at the Paleoanthropology Society Meeting in San Juan, the International Meeting for Phytolith Research and will be published in the Proceedings of the latter conference.

During June Marion visited the Palaeontology department of the National Museum of Kenya, Nairobi, and studied the collection of fossil seeds from Rusinga Island, Lake Victoria (site of the early hominoids *Proconsul*, *Dryopithecus* etc.). Then in August she visited the Palaeobotany department in the Natural History Museum, London to study the rest of the collection there in collaboration with Profs Peter Andrews and Margaret Collinson.

She presented a paper on the fossil woods collected from Koobi Fora last year at the European Palaeobotany and Palynology Conference in Prague, 6-11 September. Finally she went to Sweden to the Natural History Museum in Stockholm to carry on the southern hemisphere angiosperm flora project with David Cantrill.

The hectic year is not over yet as Rose Prevec and Marion will go to Brazil for three weeks in December to work with Roberto Iannuzzi and Tania Dutra on Permian and Mesozoic floras respectively. Will next year be less hectic?

NEWSFLASH: In January, Marion was made an Associate Professor at the BPI - congratulations Prof. Bamford! - Ed.

Ian McKay who is schools liaison and educational officer at the BPI reports that the second half of 2006 has been particularly hectic. He spent a week in Durban at a science teacher's conference (South African Association of Science and Technology

Educators) where he, along with John Almond spent time telling teachers about fossils and the geological time scale. This proved to be quite difficult because all this information is new to most science teachers who are going to have to learn quickly because they will be teaching it in the classroom soon. In addition, he is also managing the education programmes at the new Origins Centre at Wits, which will create interesting programmes integrating palaeontology and archaeology. Integrating these programmes should also allow us, in the long term, to present the BPI Palaeontology programmes to a larger audience- say up to a hundred thousand people a year.

In September and October Ian attended two overseas conferences. One was the conference of the International Geoscience Educators Organisation in Germany which is held every four years, and the other was the International Council of Museums (ICOM) university museums and collections meeting in Mexico City. He reports that both conferences made him realise that the international trend is towards using museums and outreach programmes as innovatively and creatively as possible to inform the general public about science. In the first world this is because there is general decline in the number of science graduates, and in the third world because science is seen as a way of increasing development in science and technology, thus creating a better life for everyone. Mexico, and of course Europe have a wider culture of the public attending museums, something which we need to encourage in South Africa.

Ian has just returned from the first African Conference of Science Communication in Port Elizabeth where he presented the programmes of the Origin Centre at Wits. At this meeting one of the plenary speakers devoted a great deal of time discussing the need to have evolution and the fossil record presented to the general public and at schools. This is mirrored by the recent inclusion of fossils in the Grade 12 curriculum. So it seems that

now is the time for palaeontology and evolution to finally take its rightful place in the public eye and also create much needed publicity and growth for the profession.

Bruce Rubidge continues his research on basal therapsids, with three co-authored papers describing new biarmosuchians having been published recently (see Some Recent Papers by PSSA Members, p. 37)

The next biarmosuchian project, in collaboration with Chris Sidor, is a redescription of the cranial morphology of *Hipposaurus* in the light of a new well preserved skull from the Jansenville area. This will be completed early in 2007. Bruce maintains an active interest in dinocephalians, and is currently working on the dentition of tapinocephalid dinocephalians in the light of a well-preserved specimen which was recently collected in the Grahamstown area.

Adam Yates was recently awarded a C1- rating by the NRF. His dinosaur project in the eastern Free State, together with collaborators Matt Bonan, Johann Neveling and Marc Blackbeard has delivered several unexpected dinosaurs which are currently being prepared.

NEWSFLASH: In January, it was announced that the BPI Preparator of the Semester is Mr Pepsin Mukhanela. Congratulations Pepsil - Ed.

Mike Raath retires as our Collections Curator in December and **Bernard Zipfel**, who is currently head of the Department of Podiatry at the University of Johannesburg, will take over from Mike in January 2007. Bernard, who obtained his PhD through the BPI in 2005, is familiar with the collections at the BPI and we look forward to having him on board. While we welcome Bernard, we are saying farewell to a loyal friend and benefactor of Southern African palaeontology. At a retirement function held at the at

the BPI in November Belinda Bozzoli (Deputy Vice-Chancellor Research), Paul Dirks (Head of School of Geosciences) and Bruce Rubidge paid tribute to Mike for the huge contribution he has made setting up policy for the management of the University fossil collections and streamlining the curation, management and cataloguing all the fossil collections at the University.

Mike first came to Wits in 1978 as the first full-time Director of the BPI Palaeontology when the institute was 33 years old (it is now 61). Apart from James Kitching, Mike is the person to have had the longest association with the Institute. While director, Mike built up the status of the BPI at Wits, and was instrumental in establishing a unified School of Earth Sciences at the University. As a dedicated museologist, Mike was perturbed by the lack of consideration for University Museum Collections and he established a Museum Users Committee to ensure that appropriate museological standards were applied to the various University museum collections. At that stage the BPI was housed in the Douglas Smit Building on the other side of campus. When Wits acquired the showgrounds, it fell on Mikes shoulders to make this building (then the maintenance building) serviceable as a palaeontological research institute. It was a huge undertaking to move the large collections across from the other side of the University, and as the job had to be done in a hurry, Mike gave up his sabbatical to achieve this.

Soon after this move, after 9 years at Wits, Mike decided to move to the coast when he was appointed director of the Port Elizabeth Museum, Oceanarium and Snake Park -- an organisation which he served with distinction for 8 years. Since his return to Wits in 1996, Mike has been the Grandfather figure at the BPI -- all of us turn to him for advice and council. He has not only filled the shoes of James Kitching in maintaining the fossil collections, but he has run in them as well. He took over responsibility for collections at the BPI Palaeontology, and in addition was charged with curating

the rock and mineral collections of the Geology Department, and the Raymond Dart Collection of modern human remains in the Department of Anatomical Sciences. Because of his natural flair for computerized databases, Mike has revolutionised curatorial practices at the University, making the fossils easily accessible and available to users. More recently he was also put in charge of the collection of fossil hominids. This brought new challenges. With his characteristic diligence and leadership skills, Mike has brought about new managerial practices, and made all the collections more accessible to a broader scientific community.

While fulfilling his tasks in collections management, Mike has also been involved in research. An exciting collaborative project has been the development of the nest of dinosaur eggs previously discovered at Golden Gate by James Kitching. This resulted in an exciting paper in Science last year describing the oldest dinosaur eggs yet discovered, but the story goes on as more discoveries have been made, and National Parks now intend erecting a major dinosaur exhibition centre at Golden Gate as a result. In recent years Mike has spearheaded digital scanning and reconstruction of fossils and has encouraged us all to follow in this exciting field which will have important spin-offs in the future.

Mike has served Wits with great energy, diligence and integrity and we will miss his fine sense of humour round the tea table. His rigid editorial comment on powerpoint presentations of students has become legendary. Mike and Ann are in the final stages of building a new retirement home in Cape Town where they will be surrounded by all their children and grandchildren.

For his unselfish devotion to serving and advancing the discipline of Palaeontology in southern Africa, the PSSA awarded Honorary Life Membership, the highest award of this Society, to Mike Raath. The following citation was read on the occasion.

MICHAEL ANDREW RAATH - CITATION

Mike Raath will be retiring at the end of 2006 after a lifetime of stewardship to the discipline of palaeontology. He was born in Rhodesia, received his school education at Prince Edward School in Salisbury and later attended Rhodes University in Grahamstown where he graduated with a BSc Hons degree in 1962, and UED 1963. While at Rhodes he was inspired in the wonders of the palaeoworld by the legendary R.F. (Griff) Ewer and during his BSc honours year accompanied her on a field trip with A.W. (Fuzz) Crompton, Elsabe Malan and Chris Gow to the Stormberg Rocks of Lesotho.

After graduating from Rhodes, Mike returned to Rhodesia (now Zimbabwe) where he worked for a brief period as a High School Biology teacher. During this time, he led students in excavating a dinosaur which they had previously discovered in the Forest Sandstone. This fossil discovery, which became the holotype of *Syntarsus*, was to change his life, and was the catalyst which took him into the museum profession which he has served with distinction ever since. In 1965 he was appointed Keeper of Zoology at the Queen Victoria Museum in Harare, a position he took over from Bob Brain. Already at a very early age Mike's leadership skills were apparent and a year later he became Curator (= Director) of the Museum. From 1972-1975 he served as Assistant Director of the National Museums of Rhodesia and became Executive Director of that organization in 1976. During the time of his directorship he registered as a part-time student for a PhD at Rhodes University, completing this landmark study on the anatomy and biology of *Syntarsus* in 1978. These were disruptive and difficult times in Rhodesia for somebody intent on earning a Ph.D. and at the same time having to direct a country-wide museum operation. The call of duty required that at the height of the war he was required to serve the Rhodesian Defence Force for periods of 6 weeks every 6 weeks.

Fortuitously for South African Palaeontology and Museology, Mike Raath accepted the appointment as first full time director of the Bernard Price Institute for Palaeontological Research and Professor of Palaeontology and Palaeoenvironmental Studies at the University of the Witwatersrand in 1978, a position he filled with distinction for nine years. His arrival at the BPI stimulated research on dinosaurs in South Africa which had been a long neglected component of the Karoo fossil fauna. At Wits Mike was instrumental in establishing a unified School of Earth Sciences and was its first chairman. While at Wits he also moved the BPI to its current premises in the van Riet Lowe Building and was responsible for the design and modifications required to make the building serviceable as a palaeontological research institute.

During his tenure at Wits, Mike remained an active member of the Southern African Museums Association (SAMA), and was responsible for the establishment of a Museum Users Committee at Wits to ensure that appropriate museological curatorial standards were applied to the various museum collections at the University.

Mike moved to the Eastern Cape in 1987 to take over the Directorship of the Port Elizabeth Museum, Oceanarium and Snake Park. This was a very active period for Museology in South Africa. PCs were becoming affordable, and there was much debate on minimum standards required for Natural History Museum Databases as museums prepared to set up computerized museum catalogues. During this time Mike was active on the SAMA Council and, during his presidential term, was responsible for sorting out the backlog of administrative problems which had plagued the organization. Apart from playing a leading role in the South African Museological profession, Mike expanded the research aspects of the PE Museum. He forged closer links between the Museum and the University of Port Elizabeth, where he had been appointed an honorary professor in the Geology Department, and

was active on the Advisory Board of the Institute for Coastal Research at the University of Port Elizabeth and also served as chairman of the Board.

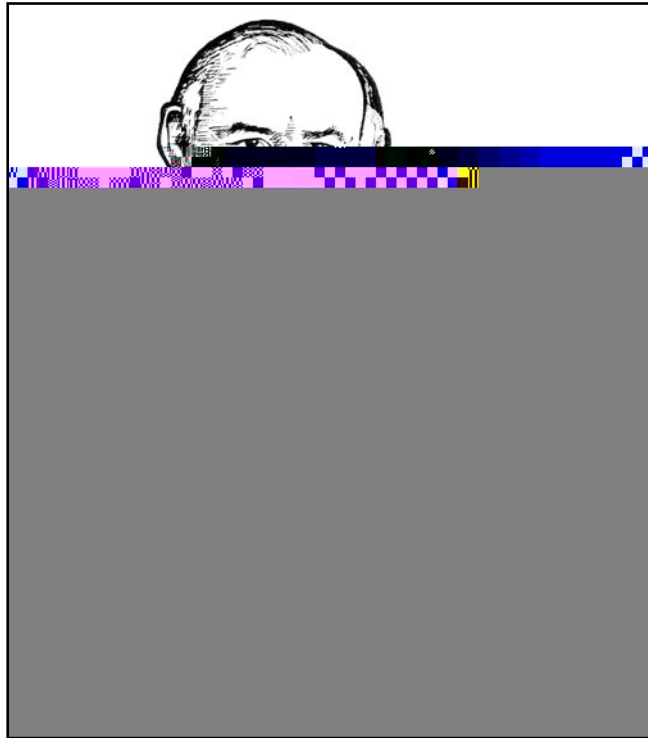
In 1996 Mike Raath returned to Wits University to take up the newly created position of University Curator of Collections. In this capacity he succeeded James Kitching as the curator of the collections at the BPI Palaeontology, but in addition was charged with curating the rock and mineral collections of the Geology Department, and the Raymond Dart Collection of modern human remains in the Department of Anatomical Sciences. Because of his natural flair for computerized databases, he revolutionised curatorial practices at the University, making the fossils easily accessible and available to users. At a later stage he was also put in charge of the collection of fossil hominids. This brought new challenges, but with his characteristic diligence and leadership skills, Mike has formulated new policy, brought about new managerial practices, and made the collections more accessible to a broader scientific community.

Despite the fact that Mike, from a very early age, has been charged with managerial responsibilities, he has published in excess of 36 articles on fossils in scientific journals, most of which are on dinosaurs, and in addition has published more than 17 papers on museum-related issues where he has played a leading role in education and collections management. He has also played an important role in popularising palaeosciences, and has written many popular articles on the palaeontological, and in particular, the dinosaur heritage of southern Africa. As a talented and entertaining public speaker he is often asked to give popular scientific talks to the public, something he does with great flair.

Mike Raath has served the scientific profession with diligence and great integrity. He has, and still, serves on the editorial board of several journals and is renowned for his meticulous attention

to grammatical detail. In addition he has unselfishly given of his time to serving on the councils of numerous scientific bodies.

Mike is a founder member of the Palaeontological Society of southern Africa and served a term as President. In the formative years, in the early 1980's, the PSSA almost ground to a halt and it is entirely due to the tireless efforts of Mike Raath and James Kitching that the Palaeontological Society was resurrected from a certain early death. The success which the PSSA enjoys today is largely thanks to the early efforts of Mike Raath.



Unmistakably Mike: depiction by Gerhard Marx, previously the resident artist at the Albany Museum.



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MIKE'S FAREWELL PARTY



Christine Steining

Johann Neveling



John Hancox

Ceri McCrae

Stephany Potze

Helke Mocke

Merrill Nicolas

Belinda Bozzoli

Ron Clarke

Spike McCarthy

Bruce Rubidge

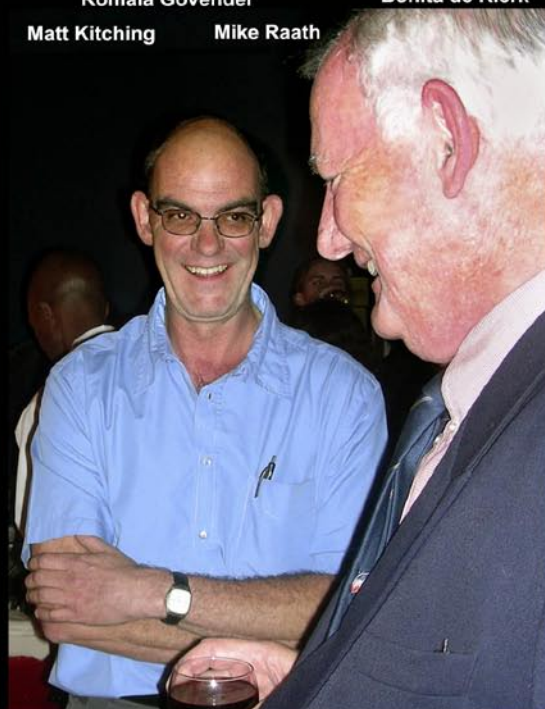
Marion Bamford

Bonita de Klerk





Romala Govender Bonita de Klerk Merrill Nicolas Bob & Laura Brain
 Matt Kitching Mike Raath Sharad Master Andre Keyser Johann Neveling



COUNCIL FOR GEOSCIENCE, PRETORIA

- December 2006

Johann Neveling

Looking back at the semester that has just rushed past, undoubtedly the palaeontological highlight was the PSSA meeting in Grahamstown. Not only was it inspiring to get an update on all the research in which everyone is involved (the scope of which seems to be growing steadily), but it was also great to socialise with friends and colleagues again. Well done to Billy, Rose and their team for organising such an excellent meeting!

Meanwhile our cross-country research on the Karoo sequences of South Africa, Botswana and Namibia is progressing well. My colleague Jabulani Maseko and myself visited the Botswana Geological Survey Department early in August in search of more information on the Kalahari Karoo. We came back with loads of paperwork and also managed a one-day epic to the town of Kang to investigate the drill cores hosted there. They are all in pristine condition and I can see some hard (s)logging hours coming up next year. More good news is that we now also have a Botswanan colleague that will be joining the project. Tobogo Segwabe will undertake a more coal-focused research project and will be leaving for Grahamstown soon where he will study for an M.Sc. with Emese Bordy. I am sure you will hear more about him and his work in the future.

Still in August, I also managed to slip away to conclude some urgent geological work at the Heelbo dinosaur locality. This farm is of course the site of two entirely different projects. The first focuses on several dinosaur localities where a team comprising Adam Yates, Matt Bonnan, Lucy Pereira and a host of other students and hard-working volunteers (including myself on occasion) have toiled hard and shed a lot of sweat over the past three years to extract some true dinosaur beauties.

As Adam so eloquently explained at the PSSA, the fauna here is unusual and the focus of my work is to tease out all the geological clues that may explain this difference.

A little bit later, in September, I was back at Heelbo, this time joining Lucinda Backwell, Christine Steininger, Lucy Pereira, Fernando Abdala and a team of 'Fossil Trackers' from the National Museum who have been excavating a much younger donga-fill assemblage here. The preservation of the bovid material is exquisite and the bone-accumulation very dense. However the stratigraphy of the wider donga-system is complicated and presents an interesting challenge.

Back at the office Linde Karny is still continuing with the vital, but often thankless task of curating the fossil collection and cleaning up the old electronic database. At year's end we were also involved in developing a palaeontological theme for the CGS's 2007 calendar. In order to make this calendar as good as possible we contacted several palaeontological colleagues throughout South Africa and begged for photos that we could use in the calendar. I have been overwhelmed by the response and in the end we were spoiled for choice - so much so that we had to leave out many great pictures (and personal favourites). We would like to extend our gratitude to everybody who so generously shared their photos. To those who have not seen the calendar yet or would like to gaze on fossils while planning their future(s), please let me know and I will send you additional copies. I still have a couple of freebees for exactly that purpose.

On that note, cheers and best wishes for an extremely successful 2007 to everyone!

IZIKO SA MUSEUM - July to December 2006

Roger Smith

Permo-Triassic Boundary Project

Plenty of PT action recently up in northern Niger on a month long field trip with Chris Sidor (Washington State) and an international team of earth scientists. Here is a short report of my preliminary findings:

The field investigations of 2003 delimited several vertebrate fossil bearing intervals in the Lullemeden Basin of Northern Niger, some of which had been previously collected, others were new discoveries. All the sites were assigned to the upper part of the Izegouandane Group, and appeared to be confined to the Moradi Fm. that had been previously assigned a Late Permian age based on palynomorphs of that age in the underlying Tarat sandstone and Triassic cheirotheroid trackways in the overlying Teloua 1 Fm.

The 2006 fieldwork confirmed the stratigraphic position of these fossils by accurately positioning each site on a newly compiled near-continuous measured section through the entire Izegouandane Group. The section was measured in the southern part of the basin where there was minimal sand cover, minimal structural disturbance and a consistent 4 degree regional dip which allowed the thickness of the few covered sections to be reliably estimated.

Sedimentological sections were measured to 10 cm accuracy through the rock exposed at each fossil locality as well as detailed logging and sampling of well developed palaeosol horizons in these sections. The preliminary palaeosol data support the sedimentological interpretation of a wide flat semi arid to arid alluvial plain with large low angle gravely alluvial fans prograding from the slowly rising Air Massif to the East, at times impinging on a large more stable meandering channel system flowing generally northwards along the axis of the basin.

The fossil rich intervals are characterised by wide shallow anastomosing channels filled with locally derived reworked pedogenic carbonate nodules, rhizcretions, and clay clods. At a locality known as Ibadenane, an area measuring 280 by 50 metres was gridded and mapped where at least 15 concentrations of scattered bones comprise mainly ribs, vertebrae and long bones of pareiasaurians. Beneath and between the bone rich conglomerate filled channels, the red mudrocks (siltstone and silty mudstone) contain more widely spaced but more articulated remains. These comprise mainly the paraeisaurians but include smaller amphibians such as *Nigerpeton* and the captorhinid *Moradisaurus*. Preliminary quarrying of one of these bone accumulations shows that the surface occurrence does not reflect the full extent of the "bonebeds" and that these "bone on bone" occurrences can be traced continuously some 40 cm below surface.

The preliminary interpretation of the depositional environments of the pareiasaur cemetery site is of a distal arid zone alluvial fan where ephemeral "flash flood" streams sweep across a silt dominated loessic plain, scouring through the sparsely vegetated soils to the more resistant calcrete horizons, reworking the previously buried bones and dumping the drought- stricken cadavers along with newly drowned carcasses on downstream gravel bars. Here, their skeletons simply fell apart to be buried by windblown sand and silt in the immediate vicinity.

Trace fossils featured in the discoveries of the 2006 fieldtrip with a small pond deposit yielding some spiral fish coprolites and two small non-marine bivalves. Also, for the first time, trackway surfaces of Late Permian reptiles and amphibians were found in the upper Moradi Fm. Two sites were studied in detail. This included logging sedimentological sections, planimetric tracing and mapping of trackway surfaces, constructing photo mosaics and making Plaster of Paris casts of those that could not be collected. The tracks show a diversity of reptiles and amphibian fauna greater than we have yet discovered as body fossils. They were impressed into cohesive lime-rich mud around the margins

of ephemeral lakes on the Moradi floodplains. The depth and style of trackway indentation suggests that most were preserved as sub-aqueous tracks in shallow water and were buried before desiccation occurred. Mudcracks that intersect the trackway surfaces were formed after burial and have been filled with windblown silt.

Pareiasaurians seem to be the flavour of the year as Georgina has finished prep (top and bottom) of the *Nanoparia* sp. skull and partial skeleton that I found whilst holidaying on Highlands farm in the Beaufort West district. The osteoderms again make preparation very difficult but she has managed to work between them to uncover many interesting limb and pectoral girdle elements and a fine set of upper teeth. Chris Sidor plans to come and work on it in April next year.

We plan to do 2 weeks fieldwork in April 2007 to finish off the micro- stratigraphic logging and systematic collecting of fossils from the *Dicynodon* Assemblage Zone strata in the Nieu Bethesda/Lootsberg Pass area to properly document the sequence of disappearance (and appearance) of various taxa approaching and during the End-Permian mass extinction event.

Evolution of West Coast Ecosystems

The month of June based at the West Coast Fossil Park at Langebaanweg proved fruitful, uncovering another 10 square metres of sivathere dominated bonebed to bring the total to 75. Of particular interest are several post-cranial element of seals and whales lying amongst scattered sivathere skeletons and the remains of a hippo skull. This is probably enough excavating for my NRF funded taphonomic research project to proceed to completion. The bones have been individually assessed and mapped, and a digital quarry plan is now available.

In November we hosted Langebaanweg 2006- a PAST sponsored symposium held at Club Mykonos in Langebaan aimed at bringing together all the current researchers involved with West Coast palaeoecosystems and the Langebaanweg fossils in particular. The 2 days of formal presentations were followed by a workshop session on how to encourage and structure future research at the Langebaanweg site. Finally, a full day field excursion led by myself and Dave Roberts to the WCFP dig site and other geological stops in the National Park.

Tracking Gondwanan Dinosaurs

Another PAST-sponsored (2 year) project with Claudia Marsicano (Univ. Buenos Aires) and Chris Sidor was presented at conferences in Cordoba, Argentina and the Mesozoic Terrestrial Ecosystems conference in Manchester with the titles "Triassic bird-like footprints from Gondwana" and "Palaeoenvironments and indenter mechanics of an Early Jurassic tracksite in southern Lesotho". We plan to return to the Maphutseng and Moyeni track sites to finish fieldwork on this project in March 2007. Unfortunately Chris will not be able to join us - however Jeff Wilson (Univ. Michigan) will be taking his place.

For a list of publications, see p. 37; those in the pipeline:

Abdala, F. & Smith, R.M.H. (in prep) Gondwanan Middle Triassic cynodonts and the Namibian connection.

Abdala, F., Cisneros, J.C. & Smith, R.M.H. (accepted) Faunal aggregation in the Early Triassic Karoo Basin: earliest evidence of shelter-sharing behaviour among tetrapods. *Palaios*.

Botha, J., Abdala, F. & Smith, R.M.H. (accepted). The oldest cynodont: new clues on the origin and early diversification of the Cynodontia. *J. Royal Soc. Lond.*

Botha, J. & Smith, R.M.H. (accepted). *Lystrosaurus* species composition across the Permian/Triassic boundary of South Africa. *Lethaia*.

Butler, R.J., **Smith, R.M.H.** & Norman, D.B. (in prep). A primitive ornithischian dinosaur from the Late Triassic of South Africa, and the early evolution and diversification of Ornithischia. Nature. Catuneanu, O., Wopfner, H., Eriksson, P.G., Cairncross, B., **Rubidge, B.S., Smith, R.M.H. & Hancox, P.J.** (accepted). The Karoo basins of south-central Africa. Journal of African Earth Sciences- special publication.

Modesto, S., **Botha, J. & Smith, R.M.H.** (in prep). Specimen of the procolophonoid reptile *Suropareion anoplus* from the Katberg Formation of South Africa.

Retallack, J.G., Metzger, C.A., Greaver, T., Jahren, H., **Smith, R.M.H.** & Sheldon, N.D. (accepted). Mass extinction on land 9 million years before the End-Permian crisis. Bulletin Geological Society of America.

Sidor, C.A. & **Smith, R.M.H.** (accepted) A second burnettiamorph from the upper Permian Teekloof formation of South Africa Journal Vertebrate Palaeontology.

Smith, R. M. H. & Haarhoff, P. (in prep). Sedimentology and taphonomy of an Early Pliocene sivathere bonebed at Langebaanweg, Cape Province, South Africa.



Chris Sidor excavating a bonebed

WEST COAST FOSSIL PARK

Pippa Haarhoff

We have just had a very successful Langebaanweg mini-symposium and workshop held at Mykonos, Langebaan from 6-10 November 2006. The event was most ably organised by **Thalassa Matthews** who was assisted by **Roger Smith** and myself.

The Abstracts have been published in African Natural History, Volume 2 (2006): 173-202. Published by Iziko Museums of Cape Town.

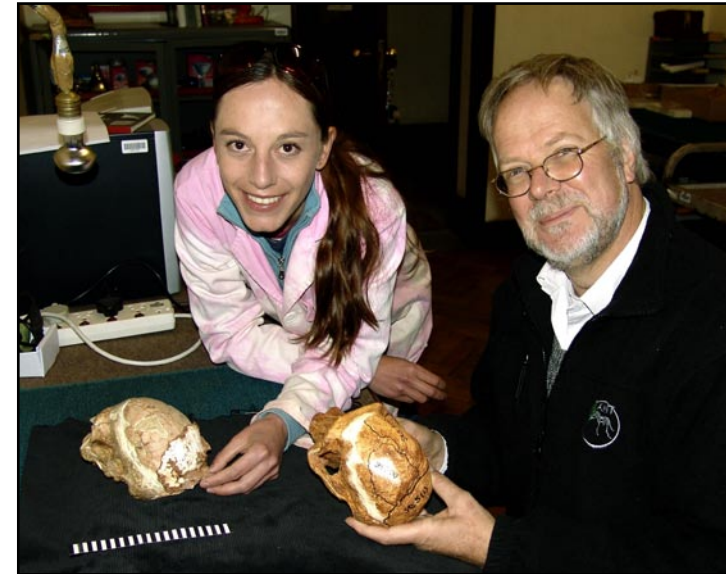
Becky Rogers Ackermann, in her role as one of the Trustees of the West Coast Fossil Park, is in the process of mapping out a new research initiative for the Langebaanweg site.

In November the West Coast Fossil Park received the "Best Museum of the Year" award in the Western Cape, given by the department of Cultural Affairs and Sport.

TRANSVAAL MUSEUM

Francis Thackeray has been appointed Director of the Transvaal Museum. He looks forward to challenges that relate to the development of research, curation and educational programmes. One exhibition that is already being planned for 2006 concerns the 60th anniversary of the discovery of "Mrs Ples". A new Biodiversity Hall is planned to replace the Genesis Hall. The Department of Arts and Culture has already provided 3.3 million rand for the latter, and the French Embassy has granted R250,000 for the exhibition on Mrs Ples.

Stephany Potze has been appointed Junior Curator (Palaeontology). The Human Origins and Past Environments Programme (HOPE) is active, involving Francis, Stephany, Jose Braga, Dominique Gommery, Vincent Balter, Frank Senegas, Thomas Lehmann, Ceri McCrae and Sandrine Prat. Tom Lehmann's research contract at the TM continues until May 2007, after which time he plans to return to Germany.



Stephany Potze and Francis Thackeray working on the temporal lines of Mrs Ples. We have been able to reveal part of the temporal lines by preparing a small block of breccia which Broom had detached, but which retained an extremely thin layer of cranial bone with evidence of temporal lines. Mrs Ples was certainly an adolescent at the time of death. There is evidence to indicate that it was a young male that died about 2.15 million years ago (based on fauna and palaeomagnetic analyses).

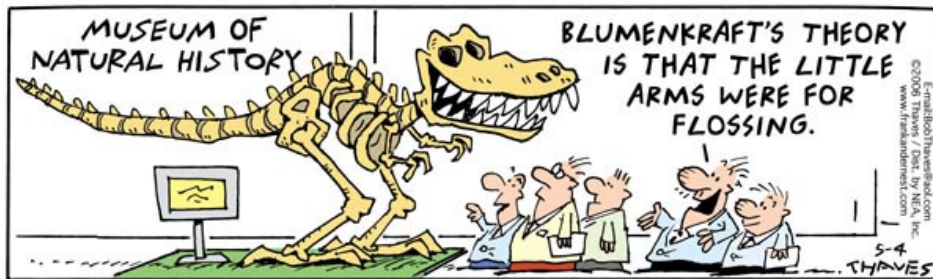
Heidi Fourie

I've had a very busy year dividing my time between occupational, health and safety, as the substitute clerk in the administration office, the Transvaal Museum archives, writing papers, doing research and assisting with visitors and curation. Just so that work does not get too mundane, Sandra Dippenaar and I went on a very successful fieldtrip to the Middelburg, EC area during September. We spent 9 days walking the length of the Groot Brakriver between the Grassridge dam in the South and the

Suurberg in the North. We collected 9 fossils of which 8 are of the genus *Procolophon*, represented by beautiful imprints. Some of these farms were last visited by Prof. J.W. Kitching and look very promising. We've done an extensive survey of the area and noted the location and orientation of individual fossils. We will be returning to the area, as I have identified several therocephalian skeletons.

Sandra and I are assisting the farmers in the Schoombee area to establish a fossil and archaeological hiking trail. Sandra found some unusual archaeological material and structures. We also took some time off to visit Ganora near Nieu-Bethesda and the Kitching Fossil Exploration Centre in Nieu-Bethesda. Both visits were very worth-while. I would like to thank PAST for their generous funding of my field trips.

The mechanical preparation with members of SASAP is ongoing and they have managed to complete the preparation of 3 dicynodont specimens. We will continue with this effort into 2007.



NEWS FROM AROUND THE WORLD

Ken Angielczyk has moved from Bristol, and is now based at the California Academy of Sciences in San Francisco. His new email address is: kangielczyk@calacademy.org

Patrick Bender

A quick update from the island world of Tasmania. I have just finished a work contract with the Tasmanian Museum and Art Gallery (TMAG), where I have over the last few years worked mainly with collections relocation and management. My new job in 2007 involves teaching and (palaeontological and educational) research with the Tasmanian Department of Education, and will be based at a school (Winnaleah District High School) near the coastal town of St Helens.

Over the last few years my palaeontological research has included publication of the first detailed description of the Karoo basin Late Permian deep-bodied fish previously known as *Athersonia seeleyi*, in the James Kitching memorial volume (I think James Kitching would be pleased that this enigmatic fossil has finally been formally described) (Bender 2005). Also the submission of a review paper of Tasmanian Early Triassic fishes (Bender in press).

I have also been fortunate to be involved with the discovery and development of an amazingly rich new Early Triassic vertebrate site on the Tasman Peninsula near Port Arthur, with a number of amphibians having come to light, possibly new species. At this early stage of site development, Andrew Rozefelds (TMAG) and Anne Warren (LaTrobe University) are the principal investigators uncovering and excavating the new finds which include a number of well preserved skulls and an almost complete vertebral column hopefully with attached skull....

This year I will be starting a project investigating Tasmanian Early Triassic micro-faunal remains, looking for correlatives with the Early Triassic Beaufort Group (see Bender and Hancox 2003, Council for Geoscience, South Africa, Bulletin 136.)here's hoping for a fossil-rich 2007....

Best wishes Patrick

Arthur Cruickshank

Arthur's been out of Palaeo for the last few months as we have been travelling from Cape Town to Queenstown - generally enjoying the Southern Hemisphere - and then moving house from England back to Scotland. We had a fantastic time in Grahamstown and really enjoyed meeting old friends and making new ones. Arthur was delighted with his presentation book and was very pleased with the recognition given to him.

Best wishes from us both
Enid and Arthur Cruickshank

Tom Kemp - University Museum, Oxford

Since eventually completing my book "The origin and evolution of mammals", published early last year by Oxford University Press, I have returned to writing 'proper' papers, picking up on a number of long-dormant projects, notably the Madumabisa Mudstone therapsids of Zambia, and the general theoretical question of how major evolutionary change occurs. During the year, Malgosia and I attended the excellent PSSA meeting in Grahamstown, the somewhat staid SVPCA in Paris, and the totally frenetic SVP in Ottawa. It was wonderful to renew many old acquaintances, and make lots of new ones.

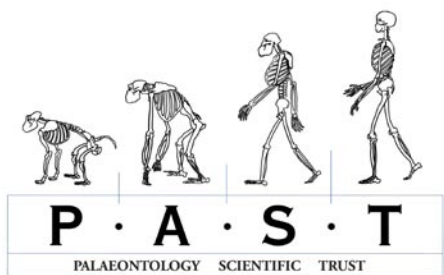
Robyn Pickering - University of Bern, Switzerland

As many of you know, I am now doing a PhD at the University of Bern in Switzerland, under the supervision of Jan Kramers. We are looking into the Uranium-Lead dating of the hominin bearing caves deposits. This method has been used successfully before at Sterkfontein - Walker et al. have an excellent paper which came out in Science at the beginning of December. However, we still had to develop the lab techniques, as the preparation of samples is not as yet a standard procedure. The fact that the existing lab protocols were all in German and that the lab assistant I was working with speaks no English were added challenges!

The language is one of the many things that makes Switzerland very different to South Africa - there is almost no point of reference and it took me a while to settle down here. Bern is a tiny town of about 120 000 people, very different to Jo'burg. In fact, the total population of greater Johannesburg is about the same as the whole of Switzerland! After 18 months here I can speak enough German and understand enough Swiss German to get by, have adjusted to living in a seasonal climate and have an enormous collection of long winter socks, which are vital.

I have spent two very productive field seasons in South Africa and have over a 100 kg of samples to try and date. We have some preliminary results from Sterkfontein and some very promising results from Cooper's Cave. All this is work in progress - the process from a rock sample to a date takes over two months, if nothing goes wrong (and something inevitably does). However, I am eternally optimistic and look forward to presenting some more data at the next PSSA meeting.

Greetings from Bern,
Robyn Pickering



PAST forward

Thirteen years ago PAST was a small NGO providing small amounts of funding predominantly for research at the Sterkfontein fossil sites.

Today we fund a broad range of archaeological and palaeontological research and education at various institutions across the country.

2007 promises to be another watershed year for PAST. To sustain our corporate funding we have to ensure that the business world is aware of the cutting-edge research taking place in South African palaeo. Our plans for a more pan-African approach are starting to materialise and we hope to play an important role nurturing and funding collaborations with African researchers. In order to ensure a viable environment for fundraising from South African corporations PAST has to build and foster strong relationships between palaeo scientists, the government and 'big business'. We have to promote an understanding of the necessity of funding palaeo research in a country where other social issues, such as health and poverty loom large. Furthermore we have plans for an international fundraising campaign to facilitate major growth in palaeo sciences.

Our educational outreach programme, Walking Tall, is continuing its valuable work in evolution education and a brand new play will be launched in February this year reaching over 50 000 learners. The programme will also be visiting Kenya to facilitate a similar programme at the Kenya National Museum. Our public awareness efforts continue and we hope to have news about our popular annual lecture soon - this year we want to try have the lecture in Cape Town as well as Johannesburg.

We are incredibly grateful for all of our colleagues in palaeo who endeavour to assist PAST in its task of fundraising for the science. We would also like to encourage others to get involved by providing any input they feel could be helpful. Please call Andrea to chat about ideas, advice, criticisms.

Here's to another fantastic year in the most fantastic field in the world!

Andrea Leenen



For more information visit:
<http://www.past.org.za>

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SIXTH EXTINCTION REVISITED

Call for a united PSSA effort

Awareness of global warming, if not yet the Sixth Extinction, has suddenly taken a quantum leap forward. Witness Al Gore's film 'An Inconvenient Truth' that circled the Earth late last year, and the 'Green Britain' campaign being aired by SKY News as of early this year. Just a year or two back, any politician pushing the issue was out on the fringe, now it is centre stage and as a leader you dare not but embrace it.

The Sixth Extinction is still fringe, and yet it might be seen as the real issue, with global warming simply (if tragically) the coup de grâce. The fuse of extinction was lit when 'Mitochondrial Eve', not too long after the Tswaing asteroid impact of 220,000 BP, set modern humans on the path of global colonisation. Since then our 'ecological footprint', in tight parallel with our mastery of communication (from speech to writing to printing to the computer) and our numbers, has become exponentially more leaden. Think of a rapidly increasing herd of bulls in a shrinking China shop. In the new climate-change lexicon, the equivalent term would be 'carbon footprint'. Ironically, the nearer in our day you get to being tribal elder, that is President or Prime Minister (and the more aviation fuel you burn), the greater your carbon footprint.

We palaeontologists and palaeoanthropologists are uniquely placed to bring the 'Sixth Extinction' to the centre of the arena. It is for us to see that, like global warming, it is on everyone's — from school kids to billionaires — lips.

Maarten de Wit (University Cape Town, geology), **Braam van Wyk** (University Pretoria, botany) and I aim to complete and publish in 2007 a book entitled 'Sixth Extinction Revisited' (or a name to this effect). Having been warmed to our science by the splendid 'Earth & Life' by **Terence McCarthy** and **Bruce Rubidge**, Struik Publishers have bitten. We are negotiating with them the scope of the contents. We invite the input of as many of our colleagues as possible. It would be most satisfying to bring this volume to the surface as a contribution by us all.

Though most of humankind haven't yet grasped the reality, our world is terribly close to cascading over the brink. We can help to draw things back from that brink.

So please join us.
We will keep in touch.

John M. Anderson

SANBI, Pretoria, 15 January 2007.



WORCESTER EXHIBIT FOR THE SIGHT-IMPAIRED AND SIGHTED

Eddie van Dijk

An open-air exhibit and another indoors is being laid out by retired geologist George van Heerden (tel: 023 3421460) mainly using specimens previously used as teaching material.

The indoor exhibit includes specimens under magnifying glasses, suitable for partially sighted. The layouts are stratigraphic, including Proterozoic, Ordovician, Devonian, Permian, Triassic, Jurassic, Cretaceous, Miocene, Pleistocene, Pliocene, Holocene.

The items have been chosen to represent different palaeoenvironments and different modes of preservation. The palaeoenvironments include marine, near-shore, mud flat, delta, periglacial, river bank, river bottom, playa lake, cave. The modes of preservation range from little-altered shell, chitinous exoskeleton, and bone, to silicification, and imprints or other trace fossils. Specimens as found in the field, and partially prepared and prepared specimens, are included. Microscopic details will be represented by copper-plate photomicrographs. One such, already prepared and tested, is annual rings of Permian wood. Some geological features, such as ripples and a small piece of glacial pavement and striated pebbles, are included. Some replicas will have to be used, for instance hopping trackways from repeated left and right feet (perfect prints, even single pairs, are rare). Scaled up fossils, such as insects, are planned.

The exhibit will be registered as a legal holder of fossils, although no specimens of particular scientific value are included. A list of the items used is planned for the next issue. Specimens such as those of common zone fossils would be appreciated. Suggestions at any time will be welcome.

Broomichnium, a new find of the taxon on a Huguenot Monument pathway. This is not a trackway, but resting marks of some sort. The pair of parallel grooves is probably part of an hexagonal array, of which there are good examples - attributable to a crustacean with pairs of limbs that scuffle, the 120° turns helping the animal to avoid excessive reworking of the same spot.



Eddie van Dijk:

eddie@vandijks.com; tel: 021 8866264
(overseas from late May to early November)

Note from the Editor: The Worcester exhibit was recently featured in local newspaper 'Die Burger', and is due to open in May this year. I hope the PSSA members will support this effort, as yet another means to promote South African palaeontology, and to reach members of the public not able to experience the visual wonders of the fossil world.



Palaeontological Society of Southern Africa

15th Biennial Meeting
Albany Museum and Rhodes University
07-10 September 2006

Presidential address:
Speak now or forever hold your peace

Bruce Rubidge

It has been a great honour for me to have been president of this Society for the past two years, which has been an exciting time for the Society, possibly the most exciting since the establishment of the PSSA 30 years ago. I remember in 1986, when I was much younger, after the PSSA conference at Cape Town, feeling despondent about the papers presented at the conference as there had been very little research progress since the meeting held two years before, and wondering where palaeontology was going in South Africa. Looking at the scientific programme for this conference, that accusation can no-longer be levelled at us, as there is much exciting research being done. A great deal of this is because of funding which is made available to us by the Palaeontological Scientific Trust (PAST). This Trust was established largely through the combined enthusiasm of Lee Berger and Phillip Tobias and several influential businessmen. I would like to record our gratitude to this remarkable Trust which works very hard to raise funding on our behalf.

In the 1980's palaeontology was regarded as a Cinderella science in this country, but this has changed and now world heritage sites are being proclaimed based on their fossil wealth. At the PSSA conference in 1988 the President, Burger Oelofsen, made a plea for evolution to be taught in Schools. In 1994 the President, Francis Thackeray, told us about his dream to have a cast of Mrs. Ples in every school in SA. Because of the efforts of all of the palaeontologists of South Africa, and especially Ian McKay, the discipline of palaeontology is now included in the national school curriculum. This in turn brings challenges as it means that the palaeontologists now need to supply the information to service our masses of under prepared teachers and learners.

Many of you will recall that early in 2004 the Department of Science and Technology (DST) organized a Palaeosciences "bosberaad" in the Waterberg and invited palaeontologists and archaeologists to attend. At this meeting Roger Smith and Bob Brain demonstrated that South Africa has a unique and rich palaeontological record extending back more than three billion years. What I find remarkable is that, despite the small number of palaeontologists employed in South Africa, this fossil wealth has received international acclaim. This is only because of the dedication and passion of the palaeontologists of South Africa who are involved in ground breaking research.

For a country of this size we have an amazing diversity of palaeontological wealth, and for this reason the DST and NRF have identified the palaeoworld as a scientific field they wish to fund as we have a geographic advantage in this respect. Most of us were disappointed by the apparent lack of outcome of the DST meeting held in 2004. You will be happy to know that it has not ended there and much work has been done since then by several people who have worked hard to move the process forward. The DST now has a draft research strategy for the African Origins

programme which will hopefully be implemented before the end of 2006. This is good news and this conference in Grahamstown provides is a good opportunity to get our minds thinking. It has become abundantly clear to me, in numerous meetings with the DST, that they do not wish to fund one or two prima donnas, but rather to support collaborative team efforts. Grants would extend over a 3-5 year period.

They will be most keen to support programmes which:

- Promotepartnershipsbetweenvariousuniversitiesandmuseums, not only in SA, but also in Africa and internationally;
- Incorporate interdisciplinary research;
- Link with industry;
- Produce students and a new generation of palaeontologists;
- Provide public visibility, as the public needs to be involved in the research being undertaken in South Africa.

In addition to this, they are also looking at institutional infrastructural requirements. These include:

- Collections and their curation;
- Non destructive imaging techniques for high resolution 3D visualization;
- Dating;
- Stable isotopes for dating and palaeoclimatology.

This is all good news, and I am sure that we will be able to come up with sound initiatives which will secure the future of our discipline in this country. What is important is that we adopt a generous approach and not seek to grab money for our own little pet projects. We rather need to approach it from the point of view of how we can work together and collaborate to benefit all (including ourselves).

While these planned initiatives are exciting, there are some disturbing trends. They are familiar to all of us but I bring them up again as they are important and need to be vigorously addressed.

1. Declining number of positions for palaeontologists

In the last decade there has been an alarming decline in the number of professional palaeontologists employed in this country. In Museums and at the Council for Geoscience alone, the number has more than halved (21 to 10). Already, ten years ago the small number of 21 palaeontologists had been the result of declining positions. Because of dwindling budgets, vacated research positions have not been filled in recent years and this has particularly affected the discipline of palaeontology. As a result important fossil collections are receiving less attention and are under threat. It is essential that this erosion of positions for palaeontologists be addressed as a national priority if the African Origins Scientific Platform is to succeed.

We are now at the point that we do not have all the expertise in this country to train a new generation of palaeontologists who are familiar with all the fields of palaeontological resources provided by the rich fossil record of this country.

2. Heritage Legislation

Permitting through PHRA's - Ever since the promulgation of the National Heritage Resources act of 1999 (Act number 25), the PSSA has repeatedly voiced its concern in writing to various relevant government bodies. This is in relation to the issuing of palaeontological excavation permits which is to be devolved from SAHRA (Head Office, Cape Town) to the various provincial administrations, PHRA's. In 1998 when SAHRA presented the proposed new permitting system to the PSSA, all members of the Society were unanimous that they wanted collecting and excavation permits to be issued by a national authority only. However despite our outcry the legislation process continued without taking into account the opinions of the only affected professionals, the palaeontologists.

Charging for permits - In 2005 SAHRA proposed a fee for excavation permit applications, as well as for temporary export of fossils. After our protestations I am grateful to SAHRA for granting exemption from paying the fees for export permits when it was pointed out to them that as these fossils get better prepared in the process, and that research undertaken is to our own benefit. In addition this would only result in extra bureaucracy for already over-committed curators. However SAHRA has decided to implement a fee for palaeontological excavation permits.

Restitution of fossils - Recently we circulated to members, a document from SAHRA which calls towards a policy on restitution. I did not see problems when I read the document, but when I saw the comments of archaeologists I realised the greater implications. For instance it appears to me that, following this document, the community of Taung would be able to call back the Taung child. The only proviso would be that they had to demonstrate that they had a place to house the specimen securely and have a person with a museum diploma to look after it. I would think that this is exactly what we do not want to happen. Past experience has shown that fossils will become neglected unless they are curated by somebody who really 'loves' them.

The most important point is that our country does not have the resources to manage a widely distributed network of "curated" objects. Restituting objects is the easy part, managing the curation of the objects on an ongoing basis is the real challenge. People have said that they are not convinced that employing a palaeontologist in some remote part of the country without any scientific back-up will keep such a person stimulated. In the end the fossils will become neglected. Maybe the solution is the suggestion that as restitution has only to do with modern human remains and cultural artefacts, we should insist that fossils and meteorites be excluded.

3. Additional threats

Commercial trading in fossils - I have been told that commercial trading in South African fossils occurs, but there is a lack of capacity in SAHRA and PHRA's to police this. Despite this lack of capacity SAHRA wishes to bring in additional legislation for us to comply with when they cannot adequately police existing legislation.

Unwilling land owners - I have experienced an unwillingness on the part of some landowners to allow palaeontologists to excavate on their land because of their own "palaeotourism" plans. This problem, which is only beginning to surface, will increase and we need to think of ways to get around this.

Rising threat of creationism vs evolution - We are all very aware of the increasing threat of teaching creationism/intelligent design verses evolution in schools in the USA. This will catch on in our country and we need to be ready to stand against the threat.

As I conclude, we need to ensure that we rigorously stand against legislation being passed against the requirements of scientists who have to work under the legislation, and which will not suit the discipline it is intended to promote. The only reason why the fossil record of this country is internationally famous and significant is because a great deal of research has been done on it, and this must not be stifled by bureaucrats for short term goals. Despite these last few negative comments, in my opinion the future of palaeontology in South Africa has never been more positive. We have strong support from Government and funders. Now we need to think of ways to collectively make the best use of these opportunities.



Minutes of the 14th Biennial General Meeting of the Palaeontological Society of southern Africa

1. Welcome

The chairman welcomed all to the 14th BGM of the PSSA.

2. Apologies

John Anderson, Bob and Laura Brain, Lloyd Rossouw, Francis Thackeray.

3. Minutes of the previous BGM (Johannesburg 12-16 July 2004)

Accepted as a true reflection: Proposed - Ludwig Döhne;
Seconded - Johann Neveling.

4. Matters arising

4.1 DST African Origins programme

The chairman pointed out that the DST should be ready to launch the African Origins Programme early in 2007 and that PSSA members should be ready to respond. He stressed that it was essential that the palaeontologists of South Africa work together to make this initiative of the Department of Science and Technology a success. He identified the following areas in need of support: collections and curation, non-destructive imaging techniques and research positions in palaeobotany, palynology, micropalaeobiology, invertebrates, fish, microfauna and the Precambrian.

During discussion the following points were identified as being of importance:

Fossil preparator positions are essential.
Regional collaboration is desired by government, and palaeontology provides a way forward.

There is a need to establish tenured positions at institutions.
Education and outreach are areas in need of support.

4.2 Development of palaeotourism and palaeotourism protocol

The chairman reported that he had met with the Director-General of Tourism in South Africa, and was advised to see all provincial MECs.

It was decided that the Society draw up a one-page protocol which will be sent to all MECs. Recommended we adopt a non-prescriptive approach, highlighting helpful aspects, e.g. the Nieu Bethesda initiative.

A one page protocol should be drafted and sent to PSSA Members for comment.

Tour guides need to be viewed in a constructive light, and that we must be more pro-active in providing information to guides, explaining why fossils are vulnerable and valuable.

De Klerk

Rubidge

4.3 *Palaeontologia africana*

The Kitching commemorative volume will be published by end September 2007.

Agreed that in future abstracts of the PSSA meeting be published in *Palaeontologia africana*. Length and format would need to be stipulated by the editor.

Bamford

4.4 PSSA archive

The new librarian at the Cory Library, Rhodes University, is not keen to archive the activities of the PSSA, but Billy de Klerk said that that he can continue to house them at the Albany Museum in Grahamstown. All documents that may require archiving should be sent to Billy.

All

4.5 Palnews

Members are happy with the new electronic format and thanked Johann Neveling for setting this up and for being responsible for the newsletter.

Members were asked to update their email addresses, and those of colleagues.

All

4.6 Web page

Merrill Nicolas offered to design and maintain the PSSA web site.

Nicolas

5. Treasurers report

The financial report was presented by the President on behalf of the treasurer, Lloyd Rossouw.

Total capital stands at R78 484.15

Report accepted. Proposed - Billy de Klerk;

Seconded - Mike Raath.

6. SAHRA report back

Mary Leslie asked for comments on legislation.

She said that some PHRAs are establishing archaeology position, and asked whether the PSSA wished the archaeologist to cover palaeontology. Meeting felt that while we wanted collaboration with archaeologists, they were not qualified to make palaeontological impact assessments, and contract palaeontologists are needed.

John Almond, Billy de Klerk and Roger Smith to form a Committee and advise the PSSA.

De Klerk
et al.

Mary said that an accreditation list was required, identifying the different areas of palaeontological expertise and those qualified for the job. She added that Heritage Western Cape is to register sites, and other Provinces need to consider this too.

Mike Raath appealed to SAHRA for Honorary Inspectors, people in the field who, on a voluntary basis, would achieve the statutory requirements of SAHRA. He suggested a change in the legislation to making all palaeontological resources Grade 1 Heritage Resources. Mary said she would investigate the possibility, but was doubtful. The new President (Billy de Klerk) to send a letter to the new Council and CEO of

Leslie

De Klerk

SAHRA. Mary Leslie to send Billy de Klerk an application form. Mary suggested a letter from the President of the PSSA to the Council regarding the appointment of a palaeontologist at SAHRA.

De Klerk

7. Accreditation and compliance issues

These issues were discussed by the Committee in 2006, but it was decided to take this up once the Archaeological Society had set up their accreditation standards. This issue must be addressed by the incoming Committee.

De Klerk

8. Venue for next meeting

John Almond suggested Matjiesfontein in the Western Cape, and was seconded by all.

9. General

Ian McKay suggested that a team of outreach people from different institutions come together to discuss how to educate children in palaeontology. Ian explained that the Geological Society of South Africa includes an educational aspect, with educators contributing workshops and lectures, and suggested an education component, inviting teachers to the PSSA. Suggested that Ian McKay take this forward.

McKay

10. Election of new Committee

President:	Billy de Klerk
Vice President:	Johann Neveling
Secretary:	Lucinda Backwell
Treasurer:	Lloyd Rossouw
Palnews Editor:	Rose Prevec
Additional Member:	Adam Yates

Nothing further and the meeting was closed.

Awards presented at the Grahamstown PSSA meeting

Life time contribution to palaeontology :

Bob Brain

Prizes:

Bob and Laura Brain

'Fun with Fossils' Prize

Rob Gess; Merrill Nicolas

Lystrosaurus - best poster

Marc Blackbeard

Lystrosaurus Shield

- best student oral presentation

Sandra Jasinowski

Harrismith Mug

- best overall presentation

Thomas Lehmann

Order of the Boot

- biggest liar

Eric Harley

Long term commitment and friend

Arthur Cruickshank



'Auli' at Billy's famous Asante Sana tracksite, the highlight of the post-conference field excursion.



Prize-winners (from left to right): back - Arthur Cruickshank, Bob Brain, Eric Harley, Merrill Nicolas, Sandra Jasinowski; front - Tom Lehmann, Marc Blackbeard and Rob Gess (photos provided by Ludwig Döhne).

PSSA'06 PRESENTATIONS

The following is a list of oral and poster presentations given at PSSA'06. Keep an eye out for the full abstracts which will be appearing in the next volume of *Palaeontologia africana*.

ORAL PRESENTATIONS

- Anderson, J.M.** The Late Triassic Molteno as World Heritage.
- Angielczyk, K.D.** & Botha, J. An integrative approach to distinguishing the dicynodont species *Oudenodon bainii* and *Tropidostoma microtrema*.
- Abdala, F.** & Smith, R.M.H. Gondwanan Middle Triassic cynodonts from Namibia.
- Backwell, L.R.,** Steininger, C.M., Brink J., Neveling J. & Pereira L. Large mammal mass death accumulation in the Holocene of South Africa.
- Battail, B.** Comments on the Late Permian cynodonts (Synapsida, Therapsida) from South Africa.
- Botha, J.,** Smith, R.M.H. & Modesto, S.P. Early Triassic vertebrate recovery following the end-Permian extinction event in South Africa.
- Brain, C.K.,** Prave A.R., Hoffmann, K.-H., Fallick, A.E. & Botha, A.J. New developments in a search for fossils of ancestral animals in Neoproterozoic limestones of Namibia.
- Brink, J.S.** Vicariance in coastal large ungulate populations during the Middle and Late Pleistocene in southern Africa.
- Chinsamy, A.,** Cordonniú, L. & Chiappe, L. An osteo-histological assessment of *Pterodaustro guinazui*.
- Chinsamy, A.** & Hurum, J.H. Palaeobiological implications of the bone microstructure of early mammals.
- Cisneros, J.C.** New proclophionid parareptile from the Katberg Formation (Lystrosaurus Assemblage Zone, Lower Triassic) of South Africa.
- Cisneros, J.C.** & Tsuji, L.A. A "nycteroleter" parareptile in the Permian of South Africa.
- Coates, M.I.** Searching for signal in the early actinopterygian record.
- Codron, D.** Stable isotopes and palaeodiet: beyond the confines of C3/C4 barriers.
- De Klerk, B.** & Brink, J.S. Evolution in action: documenting hybridization in wildebeest.
- Gess, R.** The Devonian, Famennian, Witpoort Formation (Witteberg group) fauna of Grahamstown.
- Govender, R.** Two dicynodont postcranial morphotypes from the *Cynognathus* Assemblage Zone (subzone B) of South Africa and their taxonomic implications.
- Harley, E.H.** Why are species not all asexual? A simulation approach to an old problem in Population Biology.
- Huttenlocker, A.K.,** Marcot, J. & Fox, D. New insights into therocephalian phylogeny (Amniota: Therapsida): a comparison of stratigraphy-free and stratocladistic methods.
- Jasinowski, S.C.,** Rayfield, E. & Chinsamy, A. Cranial mechanics of Dicynodontia using Finite Element Analysis and quantitative histology.
- Jinnah, Z.A.** & Rubidge, B.S. A double tusked dicynodont and its biostratigraphic significance.
- Kemp, T.A.** A palaeobiological hypothesis for the origin of the Therapsida.
- Lehmann, T.** Distribution of Tubulidentata species and their relationships with early hominids.
- Mason, R.M., Rubidge, B.S.** & Hancox, P.J. The Eccia-Beaufort contact in the Eastern Cape Province - reappraisal of litho- and biostratigraphy.

Matthews, T. The palaeoecological and evolutionary implications of the micromammals from Langebaanweg (Mio-Pliocene, South Africa).

McKay, I.J. A new genus of the cockroach family, *Umenocoleidea* from Cretaceous deposits at Orapa, Botswana.

McKay, I.J. Palaeontology and evolutionary thought in South African schools: providing a fresh context to promote palaeontology and launch a new network of museums- the Kitching Fossil Gallery, the Wits Origins Centre and the Kitching Fossil Exploration Centre.

Mothupi, T. & Backwell, L. Taphonomy of the fauna from the Plover's Lake cave flowstone bounded unit.

Neveling, J., Hancox, P.J., Yates, A.M. & Bonnan, M.F. Sedimentological perspectives on a unique Upper Elliot fossil locality in the north-eastern Free State.

Nicolas, M. Analysis and application of Beaufort Group data.

Pereira, L.M. Preliminary report on restoring identity to mummified human remains from South Africa: uncovering hidden information.

Pickering, R., Kramers, J., Partridge, T. & Venneman, T. Current research into Uranium-Lead dating of Sterkfontein Cave, South Africa.

Prevec, R., Gastaldo, R.A., Neveling, J. & Reid, S.B. A remarkable Latest Permian autochthonous flora from Wapadsberg Pass, southern Karoo Basin of South Africa.

Roberts, E.M., O'Connor, P.M., Stevens, N.J. & Gottfried, M.D. New Cretaceous and Palaeogene vertebrates from the East African Rift, Tanzania: stratigraphic, tectonic and palaeobiogeographic implications.

Rubidge, B.S. & De Klerk, W.J. Only Albany dinocephalian reveals new toothy information.

Sampson, S.D. Quest for African dinosaurs.

Scholtz, E. Reconstructing palaeoclimates: an exploratory study using the technique of xylem analysis.

Smith, R.M.H., Marsicano, C. A. & Sidor, C.A. Palaeoenvironments and indenter mechanics of an Early Jurassic tracksite in southern Lesotho.

Smith, R.M.H. & Ward, P.D. Drought Conditions in the South African Karoo Basin at the Permo-Triassic Boundary.

Steininger, C. Scratches and pits: the usefulness of dental microwear for interpreting palaeo-diets.

Vilakazi, N. Hybridization and osteology, the case of bontebok and blesbok.

Yates, A., Bonnan, M., Neveling J. & Hancox, J. A new dinosaur fauna from the Early Jurassic of South Africa.

POSTERS

Blackbeard, M. & Yates, A. The taphonomy of an Early Jurassic dinosaur bone-bed in the northern Free State.

Bordy, E.M. Ichnological Problematica from the Lower Jurassic Clarens Formation, southern Africa.

McCrae, C. Analysis of microfauna-bearing breccia from Kromdraai-A in the Cradle of Humankind World Heritage Site.

McCrae, C. & Potze, S. The latest dirt on acid preparation.

Potze, S. Cranial bone (Sts 5 i) adhering to calcified matrix associated with "Mrs Ples".

Prevec, R., Miller, I. & Pattison Rumford, J. Palaeontology in the Digital Age: the future of electronic publication.

Tawane, M.A. A non-size dependant metrical and non-metrical study of the pelvic complexes of *Australopithecus africanus* and *Australopithecus afarensis*.

Thackeray, F.J. Breaking down barriers: the use of Venn diagrams to illustrate that *Australopithecus*, *Paranthropus* and *Homo* are not necessarily three discrete taxa.

Thackeray, J.F., Senegas, F., Gommery, D., Braga, J., Potze, S., McCrae, C. & Balter, V. Excavations at Kromdraai A and B.

PSSA 15TH BIENNIAL CONFERENCE

MATJIESFONTEIN, SEPTEMBER 2008

The next PSSA biennial conference will be based at **Matjiesfontein** near **Laingsburg** on the south-western margins of the Great Karoo. Accommodation will be at the Lord Milner Hotel.

Provisional dates for the scientific sessions are **Friday 12 to Sunday 16 September, 2008**.

There will be a **two-day post-conference excursion** which will probably run through the Cape Fold Mountains / Little Karoo / southern margins of the Great Karoo (**15-16 September**). Please note these dates, as well as the following:

- We would like to compile a volume of **extended abstracts** (several pp, with illustrations and full references) for the conference, covering as wide a spectrum as possible of southern African palaeontology. If funds are available, these abstracts will be published in a local scientific journal. **Review papers** are especially welcome, including from research students. The idea is that a well-presented review, highlighting recent advances, is often of more value for the palaeontological community as a whole than narrowly focused research papers. Obviously, these extended abstracts will need to be planned, written and submitted well in advance.
- We are proposing a **two-day pre-conference geology field course** in the Laingsburg area with a focus on basic sedimentology and palaeoenvironmental interpretation (**Wednesday 10-Thursday 11 September**). This is especially - but not exclusively - aimed at palaeontology students with a biological rather than a geological background. Please let us know if this would be of interest.

The Cape Town-based team who will be organising the PSSA conference next year includes:

John Almond (naturaviva@universe.co.za; 021-462 3622),
Roger Smith (rsmith@iziko.org.za; 021-481 3879) and
Thalassa Matthews (tmatthews@iziko.org.za; 021-481 3877).



www.Matjiesfontein.com

RECENT PUBLICATIONS BY PSSA MEMBERS

Abdala, F., Cisneros, J.C. & Smith, R.M.H. 2006. Faunal aggregation in the Early Triassic Karoo Basin: earliest evidence of shelter-sharing behaviour among tetrapods? *Palaio* 21, 507-512.

Abdala, F., Neveling, J. & Welman, J. 2006. A new trirachodontid from the lower levels of the the Burgersdorp Formation (Lower Triassic) of the Beaufort Group, South Africa and the cladistic relationships of Gondwanan gomphodonts. *Zoological Journal of the Linnean Society* 147, 383-413.

Albert, R.M., Bamford, M.K. & Cabanes, D. 2006. Taphonomy of phytoliths and macroplants in different soils from Olduvai Gorge (Tanzania) and application to Plio-Pleistocene palaeoanthropological samples. *Quaternary International* 148, 78-94.

Anderson, J.M., Anderson, H.M. & Cleal, C. (in press). Brief history of the gymnosperms: classification, biodiversity, phytogeography and ecology. *Strelitzia, SANBI, Pretoria*. c. 300 pp.

Anderson, H.M. & Anderson, J.M. (in press). Molteno ferns: Late Triassic biodiversity in southern Africa. *Strelitzia, SANBI, Pretoria*. c. 300 pp.

Anderson, J.M. 2006. Humanity and the Sixth Extinction of life on Earth. In C. W. du Toit & C.P. Mayson. (eds), *Secular Spirituality as a contextual critique of religion*. UNISA, Pretoria, 22 pp.

Anderson, J.M. 2006. The Molteno Fm.: heyday of gymnosperm biodiversity. In C. Willis (ed.), *South Africa's contribution to the Global Strategy for Plant Conservation*. SANBI, Biodiversity Series No. 1, Pretoria.

Anderson, J.M. 2006. Biodiversity and the Sixth Extinction, pp 23, 24. In D. Parry-Davies (ed.), *The Enviropaedia. Eco-Logic*, Simonstown.
Abdala, F. and Allinson, M. 2005. The taxonomic status of *Parathrinaxodon proops* (Therapsida: Cynodontia), with comments on the morphology of the palate in basal cynodonts. *Palaeontologia africana* 41, 45-52.

Angielczyk, K.D., Fröbisch, J. & Smith, R.M.H. 2006. On the Stratigraphic Range of the Dicynodont Taxon *Emydops* (Therapsida, Anomodontia) in the Karoo Basin, South Africa. *Palaeontologia africana* 41:23-33.

Bamford, M.K., Albert, R.M. & Cabanes, D. 2006. Plio-Pleistocene macroplant fossil remains and phytoliths from lowermost Bed II in the eastern palaeolake margin of Olduvai Gorge, Tanzania. *Quaternary International* 148:95-112.

Barale, G., Bamford, M.K., Gomez, B., Broderick, T.J., Raath, M.A. & Cadman, A. 2005. A fossil peat deposit from the Late Triassic (Carnian) of Zimbabwe with preserved cuticle of the Pteridospermopsida and Ginkgoales, and its geological setting. *Palaeontologia africana* 41:89-100.

Barrett, P.M. & Yates, A.M. 2005. New information on the palate and lower jaw of *Massospondylus* (Dinosauria: Sauropodomorpha). *Palaeontologia africana* 41, 123-130.

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LINKS

PSSA web address:

<http://www.ru.ac.za/pssa/>

João Carlos Coimbra (joao.coimbra@ufrgs.br) recently contacted Billy de Klerk to notify him of this new website of **The Brazilian Society of Palaeontology**. For those of you interested in South American/African correlations, this site provides access to PDF's of some of the articles (many in English) published in the Society's journal, Revista Brasileira de Paleontologia.

<http://www.sbpbrasil.org>

Thanks to **Robyn Pickering** for providing the following links:

Wikipedia: great website to look things up on, from technical terms (there is a very good dictionary linked to the main site) to just the things you want to know.

http://en.wikipedia.org/wiki/Main_Page

African Journals Online: useful for well, African Journals online.

[Ed.: all journals listed here are open access journals. Interestingly, AJO is based in Grahamstown! This initiative runs on funding from various grants and sponsorship by organisations such as UNESCO. It is associated with NISC, another Grahamstown-based organisation dedicated to the dissemination of African research]

<http://www.ajol.info/browse-journals.php?tran=0>

Scirus: another online scientific search engine, I have not used this very much but I believe it's excellent.

*[Ed.: this is a very good search tool. Also try **Scopus**. I find **Jstor** most useful for older articles]*

<http://www.scirus.com/srsapp/>

Science Direct: fantastic. Just do it, register, sign in and sign up for topic alerts - all the newly published papers get sent to your inbox with links to the PDF's.

<http://www.sciencedirect.com/science/topicalerts/category/earthps>

PhD Comics: for anyone and everyone who can understand what it's like doing a Ph.D. The artist, Jorge Cham, used to be a Ph.D. student, but quit and now does a daily cartoon about doing a Ph.D., and makes a living from it... *[Ed.: PhD= 'Piled Higher and Deeper']*

<http://www.phdcomics.com/comics.php>

Looking for a job in palaeontology? Good luck! **Ross Damiani** provided the following sites that may be of help in your difficult quest:

Society of Vertebrate Paleontology: Jobs and Funding

<http://www.vertpaleo.org/jobs/index.html>

Paleonet Jobs Page

http://www.nhm.ac.uk/hosted_sites/paleonet/

Earthworks

<http://www.earthworks-jobs.com/>

Nature magazine: Nature Jobs

<http://www.nature.com/naturejobs/index.html>

Science magazine

<http://sciencecareers.sciencemag.org/>

<http://www.jobs.ac.uk>

(comprehensive listing of mainly uk based jobs)

Geotimes Classifieds

<http://www.geotimes.org/ads.html>

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NEXT DEADLINE FOR CONTRIBUTIONS:

FRIDAY 13 JULY 2007

JOBS

With a starting date of 1. 9. 2007, the Department of Terrestrial Zoology of the Senckenberg Research Institute is looking to fill the position of

Research Associate

We are seeking an individual with a PhD in zoology or paleontology who specializes in research in the evolution and morphology of mammals and who is open to scientific cooperation (with Messel research or paleoanthropology, for example). Responsibilities include the custodial care of the fossil mammal collection.

Necessary qualities include being able to work in a team and to further interdisciplinary cooperation and collaboration with other research departments of the Institute and with organizations at national and international levels. Also expected is the professional publishing of scientific works. Experience in the area of 3-D morphometry is required.

The position is salaried at the governmental scale BAT IIa/Ib for a term of 5 years with an option for extension. The job location is Frankfurt am Main.

The closing date for applications with the usual documentation is March 15, 2007. Address to:

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