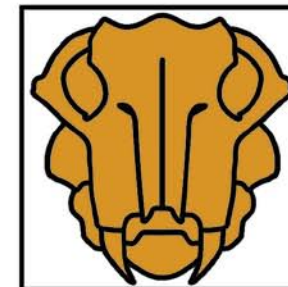


PALNEWS

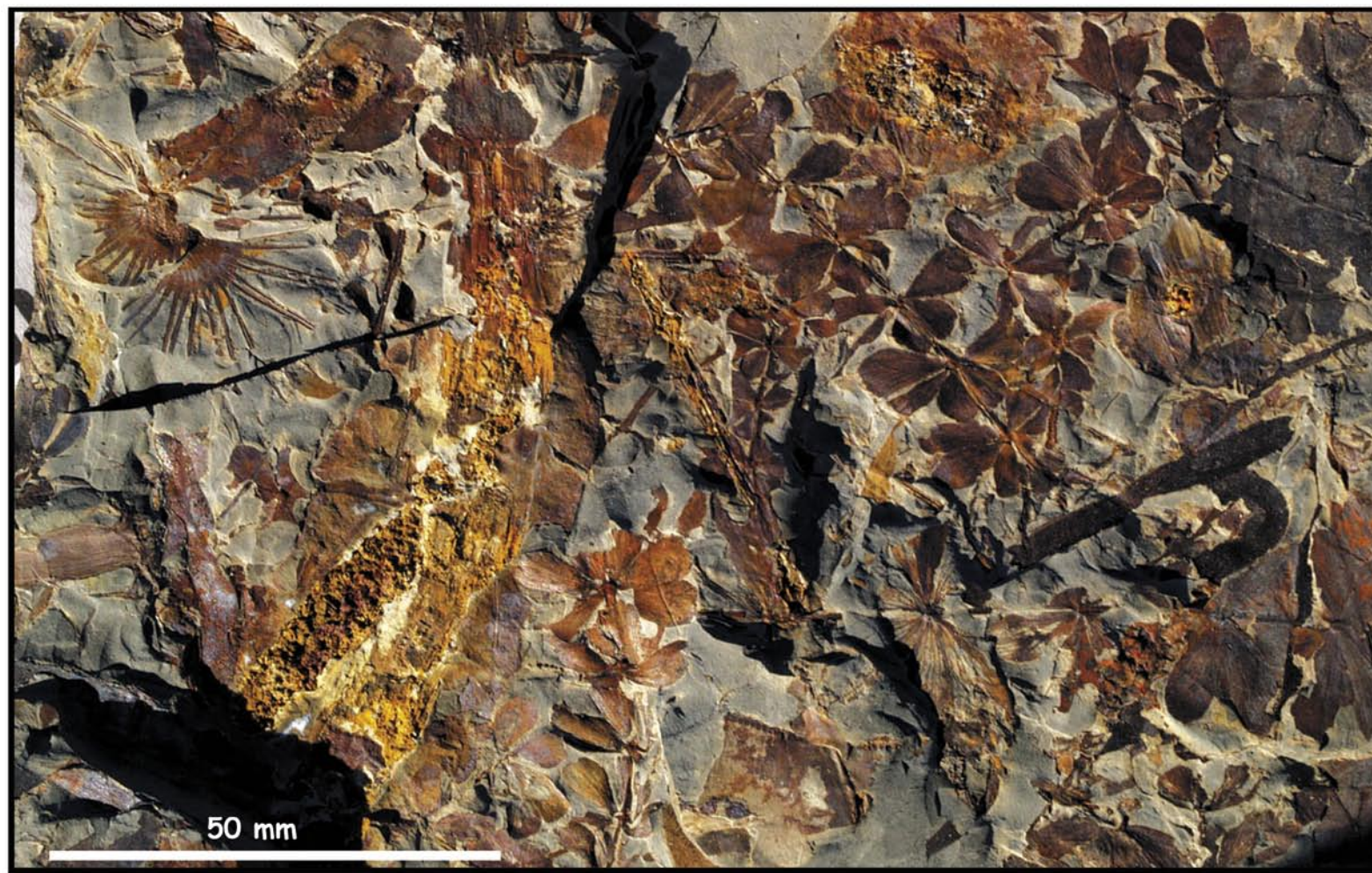
BIANNUAL NEWSLETTER OF THE PALAEONTOLOGICAL SOCIETY OF SOUTHERN AFRICA

(HALFJAARLIKSE NUUSBRIEF VAN DIE PALEONTOLOGIESE VERENIGING VAN SUIDER AFRIKA)

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PALNEWS PALNUUS

From the Editor

News from:

Albany Museum & Rhodes University

Billy de Klerk

Rose Prevec

BPI, Wits, Johannesburg

Fernando Abdalla

Marion Bamford

Lucinda Backwell

Adam Yates

Council For Geoscience, Pretoria

Johann Neveling

Florisbad Quaternary Research

James Brink

Iziko SA Museum, Cape Town

Herbert Klinger

Natal Museum, Pietermaritzburg

Mike Mostovski

National Museum, Bloemfontein

Jennifer Botha-Brink

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Gideon Groenewald

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Francis Thackeray

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Front cover: A slab from the Old Wapadsberg Pass fossil plant locality, near Nieu Bethesda, with latest Permian impressions of *Glossopteris*, *Phyllothea australis*, *Trizygia speciosa* and associated sphenopsid cones. Photograph by Prof. Bob Gastaldo, Colby College, USA.

EDITORIAL

Dear Friends and Members of the PSSA,

Although tradition often dictates that we are a bit lean on news in this part of the Palnews cycle, I was delighted to receive a great response, especially from our non-South African members, and from a number of members we haven't heard from in a while. For a change, there is also a strong representation from my old home-province, KwaZulu-Natal - it is most encouraging to see another nucleus of palaeontological skills developing in the country.

We also have a couple of articles this issue - some thoughts from Francis Thackeray on the Piltdown Man saga, and an account of the development of the PSSA logo by Mike Raath. During his final stint as editor, Johann Neveling asked Mike if he would write an article on the history of the logo - the stylised *Lystrosaurus* skull that adorns the cover of Palnews. As Johann noted, the generation who was responsible for developing this now familiar symbol is slowly moving out of the field, and the younger members of the community are probably unaware of its origins. So many thanks to Johann and Mike for this interesting piece of PSSA history.

In keeping with the Art's Festival atmosphere that still lingers here in Grahamstown, Billy de Klerk has provided us with some cultural enrichment this issue. We are both still trying to sound the depths of Wilma Stockenström's evocative poem, 'Paleontologie'...

I hope you are enjoying the electronic format of Palnews. It certainly does afford a greater degree of freedom as far as content is concerned. We do still print out a few hard copies though, which are archived at various South African libraries for safe-keeping.

For those of you who are less familiar with the PDF format, I thought I should draw your attention to some navigational devices which can assist you in getting around each issue of Palnews. When you open up your issue in Adobe Reader, you will see a number of tabs on the left side of the window, one of which is labelled 'bookmarks'. Left-click on this tab, and a list of all the headings in the issue will appear. Left-clicking on any of these, will take you to that destination in the document. Another way to get around is to click on the live links in the Contents Page. You will notice that each page number is highlighted in [blue](#). If you left-click on a page number, you will be magically transported to that page. Use the bookmarks to get back to the Contents Page. Also note the live email links in the list of members' [email addresses](#). Click on any of the addresses, and a message window will open, with the recipient's email address already included. Most of the [web addresses](#) listed in the issue are also live links - just click on them and your default browser will open and take you straight there. I hope you will find these features useful!

Please feel free to contact me with any suggestions or comments on how I can improve things. and don't forget to send me useful links, forthcoming conference information, or anything else you think may be of interest to the palaeo-community.

Wishing you all a happy and productive second half of the year,

Rose Prevec

ALBANY MUSEUM & RHODES UNIVERSITY

Billy de Klerk

The first half of this year has been a busy one at the Albany Museum. Firstly a reported fossil locality on the coast north of the Kei River mouth was investigated with Mr Kevin Cole of the East London Museum in late January. Each time I have visited this part of the Wild Coast I have been sorely tempted to continue with a sustained collecting and research project of the exposed Beaufort rocks. Once I have located and evaluated the many fossils exposed on the coastal outcrop I'm reminded why so little work has been done on these coastal rocks in the past - they are just so damn HARD! The exposures are magnificent, the fossils are there, but an enormous effort has to be made to collect them. The few fossils that I have collected have stubbornly resisted mechanical preparation attempts.

On the education front, it was an absolute treat to attend the three-day advanced "Fossil Preparation Workshop" in early February that Roger Smith and his colleagues organised at the Iziko Museum (SAM) in Cape Town. Two preparators from the Natural History Museum in London had been invited to share their experience and knowledge with SA preparators. They focused on both acid and mechanical techniques. As a consequence of being informed of new types of pneumatic preparation airscribes on the market, we purchased two of the Ken Mannion (Model-ST) tools which have made a huge difference to our productivity. These tools appear to be far more robust and durable for general preparation of Karoo fossils and are also ideal for fine and delicate work - palaeobotanists are also starting to take a shine to them.

I have also had my fill of palaeontology teaching this half-year. On an annual basis Prof Travis Perry of Furman University, Greenville in South Carolina, US brings his Wildlife and Ecology students

to South Africa and they are initially based at the Andries Vosloo Kudu Reserve in the Fish River valley and then later at the Mountain Zebra reserve near Cradock. Staff at the Rhodes Zoology Department also invited me to lead their BSc(honours) students on a Karoo trip for three days to introduce them to the mysteries of fossils and deep time. This gave the staff and post-graduate class of 2007 time to "bond" with each other and at the same time, to learn something about Karoo geology and palaeontology. It was great to rub shoulders with the zoological fraternity and it looks as if this outing will become a regular event in the future. With the proliferation of many game farms in the Eastern Cape I have been called on more and more to provide palaeontological information to these enterprises so that they can add this element of "wildlife of Africa from the past" to their tourism offerings. I have therefore been presenting lectures to groups of game rangers from various private game farms like Amakhala, Kwandwe, Shamwari and the Ulovane Environmental Training centre for rangers.

In addition to the numerous ad hoc lectures, I also presented the annual palaeontology module to the 2nd year Geology BSc students at Rhodes - always a challenge and a treat. The highlight again, was the three-day weekend field outing for mapping and fossil collecting at Asante Sana near Graaff-Reinet. This year we had 18 students and many of them expressed their displeasure in not being able to take further palaeontology courses at Rhodes in their 3rd and/or honours years.

During mid March my preparator, Vincent Mtyobo, and I joined Prof Bruce Rubidge, Dr Doug Erwin (Smithsonian Museum, US) and their field-team in the Klipplaat/Jansenville area of the southern

Karoo for a 10-day spell of fossil hunting. This was a particularly productive field season with a number of good research fossils being recovered and in addition several volcanic ash bed localities were identified and sampled. In time it is hoped that these ash beds will provide reliable ages of sedimentation.

Shortly after completing my teaching stint in late May, I had the good fortune to travel to England for two weeks. My wife, Vivian, was to attend a conference in Stratford upon Avon and so I took the opportunity to travel with her to the UK so that I could do some work on the baby iguanodontian dinosaurs that Drs Cathy Forster, Callum Ross and I had collected from the Kirkwood Formation some years earlier. I was able to set up a meeting in Cambridge with Dr Dave Norman to study some of the material that I took along with me. By pure good fortune, Cathy Forster, from New York was also in Cambridge at that time as she had been invited to examine a PhD in Cambridge and our visiting dates coincided - what a stroke of luck! So Dave, Cathy and I were able to study these baby basal iguanodontians from the Kirkwood together. Another stroke of good fortune was that the annual Cambridge beer festival was in full swing at the time so we were able sample many of the 350 odd brews on offer in the evenings Hic! After Cambridge I left Viv in Stratford and headed to Oxford where Tom and Malgosia Kemp kindly hosted me for three days at the Oxford University Museum of Natural History. I was keen to study the Oxford iguanodontian material - in particular *Camptosaurus*. After spending some hours in their storage area I was tempted out of the basement to wander through the truly magnificent public displays. It is one of the finest natural history museums that I have experienced. While slowly going through the displays I chanced upon a Jurassic crab fossil that was collected in southern England in the late 1800s. It is almost identical to a specimen that I had recently collected from the lower Cretaceous Sunday River Formation near Port Elizabeth. I now have a lead into a new invertebrate project.....

Ahhh, the value of a good natural history museum!

I'm looking forward to a slower paced second half of this year with some Cretaceous field work with Eric Roberts from Wits in early August.

Till next time - Billy

Rose Prevec

My Rhodes Postdoctoral Fellowship came to an end in March this year, but I was very fortunate to receive external postdoctoral funding from an NSF grant, through Conrad Labandeira of the Smithsonian Institution in Washington DC. So I can hang on for another year at Rhodes, continuing work on the glossopterid floras of South Africa and associated insect damage.

This year I have a student, Lara Sciscio from the Botany Department at Rhodes, working with me on the beautiful *Trizygia* sphenopsid material from Old Wapadsberg Pass for her third year research project.

With the greatly appreciated assistance of volunteers Sean Linkermann, Crystal Clitheroe and Lara, we have been forging ahead with the job of preparing and cataloguing the vast numbers of plant fossil slabs collected from the Empangeni region and the Wapadsberg Pass. Although this is slow and often tedious work, there are times when unwrapping all these treasures is more like Christmas morning than hard work! Already, I have found a number of insect body fossils from Wapadsberg Pass - an unexpected and most exciting turn of events.

Dr Emese Bordy and I have continued our work on the plant fossils and geology of the Emakwezini Formation in north-

eastern KwaZulu-Natal, and are due to return to the area at the end of the month to visit the new Somkele Coal mine in search of more geological clues and plant fossils.

Conrad Labandeira visited Rhodes University and the Albany Museum in May. We spent nearly two weeks working on some amazing insect damage on *Glossopteris* leaves and sphenopsids from the Wapadsberg Pass localities. Conrad also presented a fascinating talk at the Albany Museum for the Royal Society, on changes in the diversity of plant-insect interactions through time. He dazzled us with his incredibly detailed and painstaking research and vast knowledge of both palaeobotany and palaeoentomology.

This June, I visited the BPI to work with Marion Bamford on the enigmatic *Breytenia* fossils that surfaced recently in the herbarium. We have been exploring the use of X-Ray tomography to gain a better understanding of these purported fructifications from the Early Permian, and we visited Frikkie de Beer at NECSA, Pelindaba for a couple of days to perform some high resolution scans to this purpose.

After a most useful week at the BPI, I met up with Johann Neveling and Bob Gastaldo (Colby College, USA) for another field season exploring the PT boundary for signs of plant fossils. Bob once again brought two enthusiastic and entertaining students along, to work on aspects of the Bethulie section. Waking up to a white world and falling snowflakes the size of feathers at Bethulie, was certainly a new experience for Johann and me! However, despite the odd day of bad weather and the freezing cold wind at the Loodsberg and Wapadsberg Passes, the trip was a great success with many new findings, including the discovery of a second exposure of our plant fossil horizon at Old Wapadsberg Pass.

BERNARD PRICE INSTITUTE FOR PALAEONTOLOGY

WITS UNIVERSITY, JOHANNESBURG

Fernando Abdala

Fernando has been involved in different projects, now in press and submitted:

- a. the description of the oldest therocephalians from the Eodicynodon Assemblage Zone, with B. Rubidge and J. Van den Heever;
- b. palaeohistological studies of traversodontid cynodonts from South America with A. Chinsamy;
- c. the description of enigmatic teeth of allotherian-like therapsids from the Cynognathus Biozone, with H. Mocke and P. J. Hancox;
- d. the study of enamel microstructure of traversodontid cynodonts from South America, with M. C. Malabarba (Porto Alegre) and
- e. the description of a procynosuchid cynodont from the Tropidostoma Biozone and thus one of the oldest known cynodonts, with J. Botha.

Marion Bamford

This has been a quieter first half of the year for me and I have only done field work in the eastern Free State at Seekoeivlei Nature Reserve for neotaphonomy with Charles Peters from the University of Georgia, USA. In April I went down to Howick for the SASQUA 15th Biennial meeting and presented a paper on the Pliocene fossil woods from Koobi Fora. I was re-elected as Honorary Secretary for the Society. In mid June I will join the Koobi Fora Field School run by Rutgers University and the National Museums of Kenya and collect more fossil woods from the strata that are still poorly represented. Lucille Pereira will

also come on the Field School and collect phytoliths for her PhD project. I have the opportunity to write up some research, revise papers and review papers.

Lucinda Backwell

Lucinda Backwell has conducted various taphonomic experiments this year. These involve rodent, insect and human modification of bone. In the first experiment various rodent taxa were given different types of bones in various stages of preservation to gnaw. The second experiment grew out of the discovery of unusual insect traces on Plio-Pleistocene-age fauna following the removal of manganese and iron oxide deposits by Steven Pole (PhD candidate, Chemistry Department, Wits). This project, conducted in collaboration with Eric Roberts (Geology Department, Wits, see photo), focuses on the modifications termites produce on various types of bone inserted into their mounds.



Different types of bones being inserted in a termite mound to document termite modification.

The third experiment was conducted in order to create a comparative collection of large mammal skeletons butchered using different types of stone tools. This study, made in collaboration with Andrea Leenen (MSc candidate, Palaeontology, Wits) involved documenting the type and distribution of marks made by Kalahari Bushmen hunters during butchering (see picture).



Kalahari Bushman butchering a cow using quartzite flakes.

A manuscript on a bone tool industry from the Howiesons Poort levels at Sibudu Cave, written in collaboration with Francesco d'Errico (University of Bordeaux), has been submitted for publication. Study of fossil hair extracted from Late Pleistocene 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), Andrew Wilson (University of Bradford), Robyn Pickering (University of Bern) and Lee Berger (Wits). The third year of excavations at Wonderkrater peat mound, made in collaboration with Zoë Henderson, Lyn Wadley, Louis Scott, Lloyd Rossouw and Stephan Woodborne will be conducted

in August, and excavations at Heelbo, the large mammal mass death assemblage, made in collaboration with James Brink, Lloyd Rossouw, Johann Neveling, Fernando Abdala and Lucy Pereira will resume in September. Data previously taken with Francesco d'Errico (University of Bordeaux) on early hominid bone tools from South Africa will be analysed in December. We are collaborating on a new methodology that involves quantifying bone surface modifications using a profilometer. This forms part of an ongoing study of the use and modification of bone by early humans and the implications for behaviour and cognition. We will also describe worked bone collections from Drimolen and Sibudu Cave.

Adam Yates

Adam (together with colleagues Johann Neveling and Matthew Bonnan) has been continuing his work on a new dinosaur fauna from a site near Rosendal in the Free State. A preliminary publication is nearing completion and promises to introduce three new species of dinosaur to South Africa's faunal list. Adam is also working with Paul Barrett and Richard Butler on an unusual ornithischian dinosaur that he stumbled upon during a long-weekend holiday to the eastern Free State. Amongst Adam's students Marc Blackbeard has returned for a Masters degree. His project entails sorting out part of the tangle that is Euskelosaurus and describing a new specimen of the very rare Eucnemesaurus from the Eastern Cape. He is also supervising two honours students: Natasha Barbolini is looking at the neck mechanics of Massospondylus while Gary Trower is describing some dinosaur trackways from the Drakensburg National Park.

COUNCIL FOR GEOSCIENCE, PRETORIA **Johann Neveling - July 2007**

For the better part of the year, most of my palaeontological time has been spent on keeping the ball rolling on a number of current projects.

Several muggy days in February were spend around Estcourt, tying-up the few geological loose ends at the magnificent (no really, even a vertebrate/seds guy like myself is impressed) Clouston plant fossil site. This work, which is the result of collaborative research with Rose Prevec, Marion Bamford, Bob Gastaldo (Colby College), Conrad Labandeira and Cindy Looy (Smithsonian), has now been completed and submitted for publication.

Further collaborative research stemming from this group continued in June when I joined Rose and Bob, as well as Sophie Newbury and Kit Clarke, two of Bob's students from Colby, for fieldwork in the central Karoo. Other than being snowed- and rained-in a couple of times, we also managed to put in a bit of work, including collecting more plant fossils from the Wapadsberg sites reported on at the PSSA-meeting last year. The geological analyses on these are already far advanced and we hope to have something in publication pretty soon.

Research in the Elliot Formation is also continuing. The Heelbo study area seems to be the site that keeps on giving (if I may borrow the slogan). Every time they go back Adam Yates and his crew retrieve more material. I joined them in mid-April of this year, when this principle seems not yet to have changed with the discovery of another small locality containing several dinosaur bones. From here I hopped to Fouriesburg and Clarens to compare lithologies.

Our international collaborative research on the Karoo sequences of South Africa, Botswana and Namibia also continued with my colleague Jabulani Maseko and myself visiting the town of Kang in western Botswana during March to study drill cores housed in the Botswana Geological Survey's facility there. Unfortunately Jabulani has subsequently left us for greener or darker pastures (depending on your view of coal mines), but at least we obtained good data from our work together, and I now face the prospect of hunching over the microscope, looking at thin sections. Tobogo Segwabe who is currently studying under Emese Bordy at Rhodes, is also progressing well and will hopefully add to our current understanding of how to better link and correlate the different Karoo basins in southern Africa.

And so it continues...

Johann Neveling

FLORISBAD QUATERNARY RESEARCH

James Brink

The last few months saw work continuing as usual at Florisbad, but with a minor change in our approach to the future management of the site. We've decided to continue pursuing a program of greater public access to Florisbad, but with the aim of maintaining and expanding Florisbad as a research station. We are in the process of negotiating this with the management of the National Museum and the Dept. of Arts & Culture.

We maintain our research focus on the evolution of Quaternary mammal faunas and palaeo-environments of southern Africa, with emphasis on the interior. Lloyd Rossouw is writing up his doctoral dissertation on developing phytoliths as a palaeo-ecological technique. James is continuing to look at ungulate evolution and

has spent some time in Cape Town looking at early alcelaphines from Langebaanweg and at early wildebeest from Olduvai. Daryl Codron, who has been with us as a postdoctoral fellow since February 2006, has taken up a teaching position in the School of Biological and Conservation Sciences, University of KwaZulu-Natal (Pietermaritzburg), but we foresee continued collaboration on isotope palaeo-ecology and Quaternary palaeo-environments.

James, Lloyd and Daryl intend to present a joint paper with Rainer Grün, ANU, Canberra, at the INQUA congress in Cairns, Australia, in August 2007, with the title: 'Mid-Quaternary large mammal succession and extinction in southern Africa'.

Publications:

- Curnoe, D., A. Herries, J.S. Brink, P. Hopley, K. van Reyneveld, Z. Henderson & D. Morris. 2006. Discovery of Middle Pleistocene fossils and stone tool-bearing deposits at Groot Kloof, Ghaap Escarpment, Northern Cape Province. *South African Journal of Science* 102: 180-184.
- Codron, D., Codron, J., Lee-Thorp, J.A., Sponheimer, M., de Ruiter, D. & Brink, J.S. 2006. Dietary variation in impala *Aepyceros melampus* recorded by carbon isotope composition of feces. *Acta Zoologica Sinica*. 52(6): 1015-1025.
- Codron, D. & J.S. Brink. 2007. Trophic ecology of two savanna grazers, blue wildebeest *Connochaetes taurinus* and black wildebeest *Connochaetes gnou*. *European Journal of Wildlife Research* 53: 90-99.
- Codron, D., J. Lee-Thorp, M. Sponheimer, J. Codron, D. de Ruiter & J.S. Brink. 2007. Significance of diet type and diet quality for ecological diversity of African ungulates. *Journal of Animal Ecology*. DOI: 10.1111/j.1365-2656.2007.01222.x
- Henderson, Z.L., Scott, L. Rossouw, L. & Jacobs, Z. 2006. The dating, palaeoenvironments and archaeology of the Sunnyside 1 site, Clarens, South Africa. In: T. Rocek (ed.). *Intergrading the diversity of 21st century anthropology: the life and intellectual legacies of Susan Kent*. *Archeological Papers of the American Anthropological Association* Vol. 16 No. 1, pp. 139-149. (doi:10.1525/ap3a.2006.16.1.139).
- Rossouw, L. 2006. Florisian mammal fossils from erosional gullies along the Modder River at Mitasrust farm, central Free State, South Africa. *Navorsinge van die Nasionale Museum* 22(6): 145-162.

Abstracts:

- Backwell, L.R., Steininger, C.M, Brink, J., Neveling, J., Rossouw, L. & Pereira, L. 2007. Large mammal mass death accumulation in the Holocene of South Africa. *Palaeontologia Africana*. 42: 118.
- Brink, J.S. 2007. 2007. Vicariance in coastal large ungulate populations during the Middle and Late Pleistocene in southern Africa. *Palaeontologia africana* 42: 120.
- Rossouw, L and Scott, L. 2006. Ecological significance of South African short-cell phytoliths. 6th Biennial Meeting of the Society for Phytolith Research in Barcelona, Spain, September 2006. Society for Phytolith Research Bulletin 1 (1): 14.

IZIKO SA MUSEUM, CAPE TOWN

Herbert Klinger

Last year I had the opportunity to look at the material excavated for extensions to Richards Bay Harbour. The excavated material was dumped in an area about the size of a football field. Apart from hundreds of specimens of *Pachydiscus australis* Henderson & McNamara, 1985, I found a fragment of heteromorph ammonite *Diplomoceras cylindraceum* (Defrance, 1816). With a diameter of circa 125 mm, this is larger than the giant *Diplomoceras maximum* Olivero & Zinsmeister, 1989 from Antarctica. A fragment of the scaphitid genus *Discoscaphites* is also new from this area.

Unfortunately time was running out, but I managed to visit Lake St Lucia and False Bay. Due to continued drought there is virtually nothing left of the lake, and many localities which Jim Kennedy and I previously could only reach by boat, can now be reached on foot. I plan to return to the "Lake" in August to visit some of the critical sections.

Work on the illustrated catalogue of the heteromorph ammonite families Nostoceratidae Hyatt, 1894 and Diplomoceratidae

Spath, 1926 is continuing and is nearly 500 MS pages by now. I have completed a description of some of the heteromorphs from Madagascar in the Collignon collection Dijon, as well as specimens in the private collection of Wolfgang Grulke in Sandton. Surfing the web, I was amazed at the number of new ammonites from Madagascar that are now available commercially. I had thought that Collignon had just about covered the whole of the Madagascan Cretaceous faunas, but it seems that new localities have been discovered.

Shallin Abraham has joined Earth Sciences to fill the vacancy of collections manager in Invertebrate Palaeontology and Geology after Grazyna Marska left on early retirement.

NATAL MUSEUM, PIETERMARITZBURG

Mike Mostovski

At last, after two long years, the Proceedings of the Third International Congress of Palaeoentomology are published as a Special Edition of African Invertebrates. The Third International Congress of Palaeoentomology, the Second International Meeting on Palaeoarthropodology and the Second World Congress on Amber and its Inclusions gathered more than 60 delegates from 19 countries under the title of "Fossils X 3" at the South African National Biodiversity Institute in Pretoria, South Africa, from 7-11 February 2005. The participants covered a broad range of topics, highlighting insect and other arthropod phylogeny and systematics, assemblages, biodiversity, taphonomy and trace fossils.

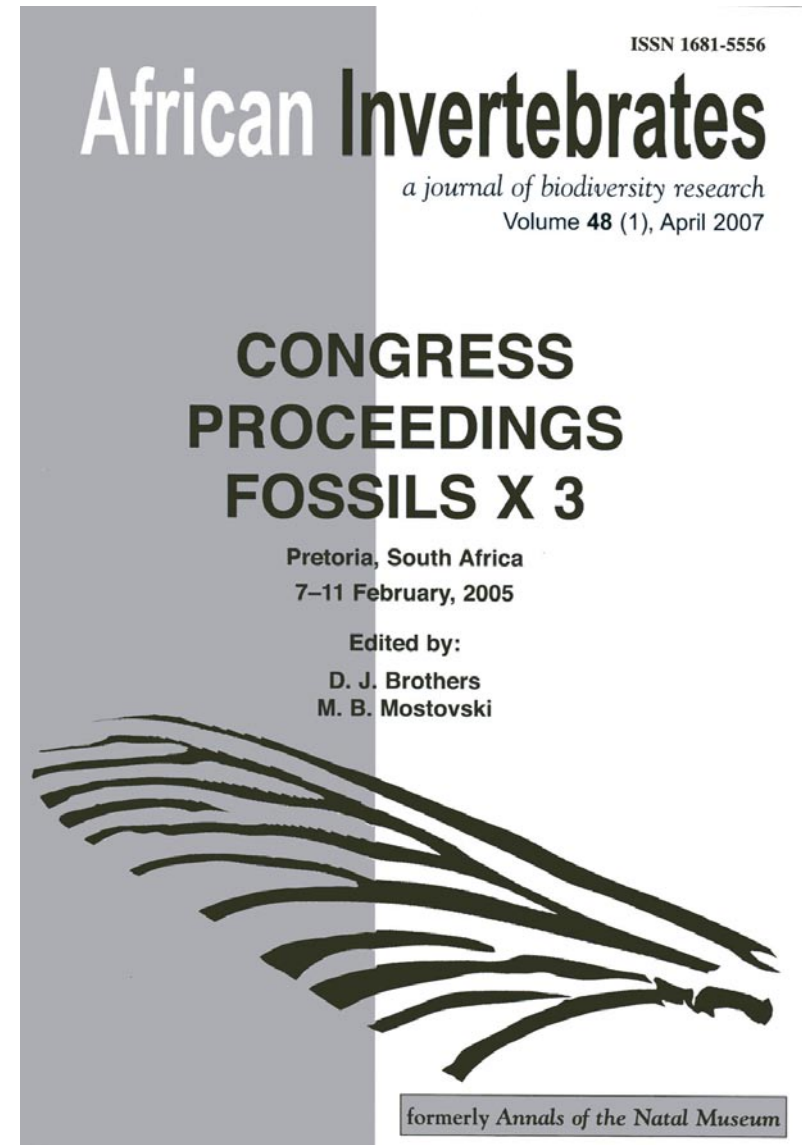
The volume, serving as a partial Proceedings of that Congress, also embraces a wide spectrum of subjects and presents 18 refereed papers, which are grouped into three sections. The

section on Palaeoecology and Taphonomy comprises five articles. Two feature taphonomy and environmental reconstructions of the Lower Permian insect beds of Kansas and Oklahoma, USA, and the Upper Permian Belmont insect beds in Australia. Two other papers are dedicated to interactions between insects and plants, and the last article highlights the ecological role of phantom-midge larvae in the Eocene Lake Messel, Germany.

As always, the majority of papers fall under Taxonomy and Phylogeny. Ten articles contain descriptions of 3 new families, 17 new genera, and 19 new species. Nine new combinations and 56 new synonymies are proposed. The papers cover an impressive range of Palaeozoic, Mesozoic and Cainozoic groups represented by compression fossils or inclusions in fossil resins, from localities in Argentina, Botswana, Brazil, China, the Czech Republic, England, Germany, France, Lebanon, and Russia. The following higher taxa are dealt with: Araneae, Paoliida, Grylloblattida, Blattaria, Hemiptera, Mecoptera, Diptera, and Hymenoptera. One paper continues the long-standing dispute about the dawn of insect evolution, comparing aquatic and terrestrial models of insect origins.

The last section, Amber Studies, offers two very important contributions that provide a profound analysis of arthropod assemblages from Eocene and Cretaceous resins. There are also three brief notes, on new insects found in the Upper Jurassic Talbragar beds in New South Wales, Australia, on the IGCP 469 international project on the Late Variscan terrestrial biotas and palaeoenvironments, and on EDNA, the world-wide fossil insect catalogue.

Abstracts of the papers are available on the journal Web site (<http://www.africaninvertebrates.org.za>), and a full electronic version of these Proceedings is downloadable from the on-line Library of the International Palaeoentomological Society



(<http://fossilinsects.net>), as is the programme and abstracts of the Congress. Printed copies can be purchased from the Natal Museum Library (library@nmsa.org.za).

This publication is aimed to encourage further studies of ancient arthropods, and we shall be able to see each other and discuss cutting-edge issues at the symposium, Insects in Palaeoenvironments, to be held during the XXIII International Congress of Entomology (ICE 2008; <http://www.ice2008.org.za>) in Durban, South Africa, in 2008.

Recent publications:

- Brothers, D.J. & Mostovski, M.B., eds, 2007. Congress Proceedings Fossils X 3, Pretoria, South Africa, 7-11 February 2005. Pietermaritzburg: Natal Museum, 249 pp.
- Labandeira, C.C., Kvaček, J., Mostovski, M.M. (in press). Pollination drops, pollen, and insect pollination of Mesozoic gymnosperms. *Taxon*.
- Mostovski, M.B. (in press). Contributions to the study of fossil snipe-flies (Diptera: Rhagionidae). The genus *Protorhagio*. *Paleontological Journal*.
- Sukatsheva, I.D., Beattie, R. & Mostovski, M.B. (in press). *Permomerop natalensis* sp. n. from the Late Permian of South Africa, and a re-description of the type species of this genus (Insecta: Trichoptera). *African Invertebrates*.

NATIONAL MUSEUM, BLOEMFONTEIN

Jennifer Botha-Brink

I haven't contributed to Palnews since early 2006, but I am still working hard on the Early Triassic Recovery project. I am currently focusing on the biology and ecology of the vertebrates following the end-Permian extinction. Since February 2006, Dr Sean Modesto from the University of Cape Breton, Canada and I have completed three field trips to localities containing the *Lystrosaurus* Assemblage Zone. In February 2006, we returned to some newly discovered fossiliferous localities in Middelburg and recovered numerous

parareptile and therapsid fossils. In March, I returned to one of these sites with Dr Roger Smith, from the Iziko South African Museum in Cape Town to document the geology of the area. In August, Sean and I spent a week in Harrismith in an attempt to hunt down some of James Kitching's old sites, only to find that most of them had been destroyed by the expansion of the town. In September, I attended the PSSA conference in Grahamstown where it was great to see old friends and colleagues again. In March 2007, I took the plunge and got married and then in May, Sean Modesto and I returned to Middelburg and also visited several localities in the Bethulie district. We've had quite a successful run and are now working on several projects resulting from these collecting expeditions including an expansion of the *Sauropareion* project, a description of a therocephalian, an archosauromorph and some burrow material. We have enough to keep us busy for quite a while now. In other news, I began a Palaeontology Honours Module at the University of the Free State with Dr James Brink in 2006 and it has been running successfully now for two years.

Recent Publications

- Botha, J., F. Abdala and R. Smith. 2007. The oldest cynodont: new clues on the origin and diversification of Cynodontia. *Zoological Journal of the Linnean Society* 149: 477-492.
- Botha, J., S. Modesto and R. Smith. 2007. A specimen of the procolophonoid reptile *Sauropareion anoplus* from the Katberg Formation of South Africa. *South African Journal of Science*. 103: 54-56.
- Botha, J. and R. Smith. 2006. Rapid vertebrate recuperation in the Karoo Basin of South Africa following the end-Permian extinction. *Journal of African Earth Sciences* 45 (4-5): 502-514.
- Botha, J. and R. Smith. 2007. *Lystrosaurus* species composition across the Permo-Triassic boundary of South Africa. *Lethaia*. 40(2): 125-137.

PEACE PARKS FOUNDATION, LESOTHO

Gideon Groenewald

The Maloti Drakensberg Transfrontier Conservation and Development Project is a very interesting conservation project that includes both biodiversity conservation and tourism development across the borders of Lesotho and South Africa, and is funded by the Global Environment Fund (GEF). It is managed by the World Bank. My involvement as geologist is quite interesting as I am appointed as Lesotho TFCA Facilitator by the Peace Parks Foundation and through this involvement was requested to investigate the status of geological and palaeontological conservation in this region. The study areas include the area from Fouriesburg in SA in the north, all along the border with Lesotho to Ongeluksnek in the Eastern Cape (see map).

The Maloti and Drakensberg region is one of 200 sites in the World regarded as of "Global Significance for its Natural Beauty". I am presently busy with the compilation of a database on Geology and Palaeontology of the whole region in which we would like to record all geological and palaeontological sites that might be of conservation significance for the interpretation of palaeo-history.

Palaeo- and Geo-tourism are becoming important role players in the tourism market and it is becoming increasingly important that all stakeholders, including local communities in rural areas, are well informed about the value of geological outcrops and particularly palaeontological sites where people need to be sensitive to the preservation of the sites in as close to their present state as possible. Although geological outcrops in the Beaufort and Stormberg Groups are mostly associated with serious erosion and are therefore in conflict with conservation, there are places where these outcrops will not be rehabilitated for many years and these could just as well

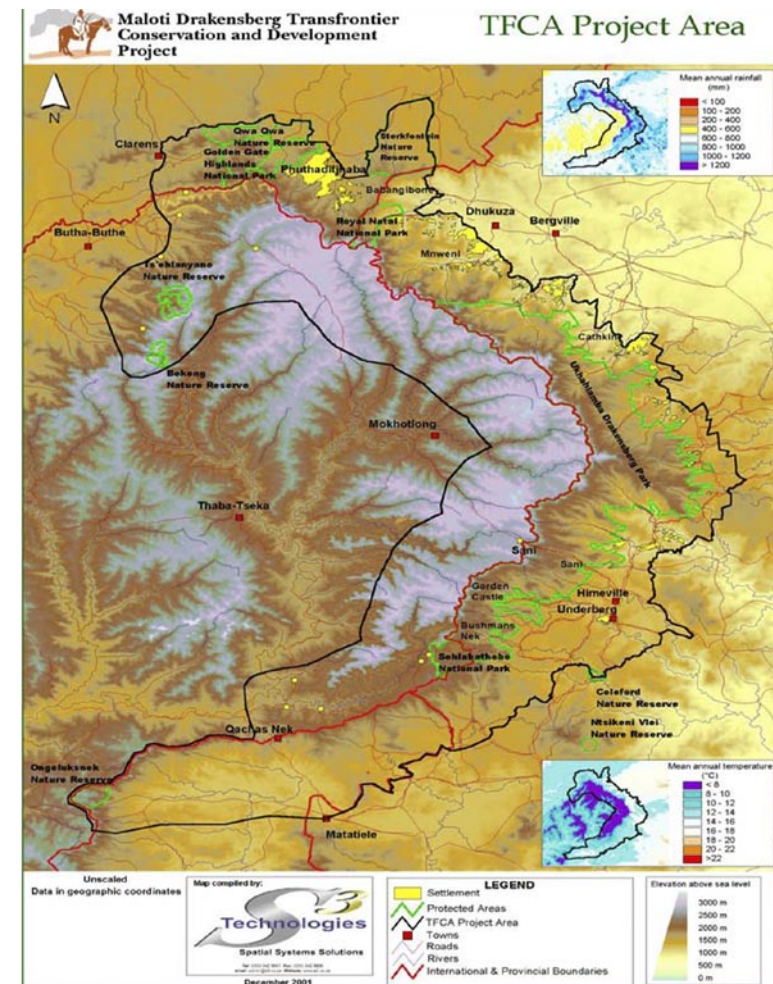
become sites of geological displays of sedimentary and volcanic deposits.

The present program has lead to several new discoveries of palaeontological significance and I will report on these finds in the next issues of Pal-News.

Greetings

Gideon Groenewald

Lesotho TFCA Facilitator, Ministry of Tourism, Environment and Culture
(Lesotho), Peace Parks Foundation; Tel: +27 82 829497



TRANSVAAL MUSEUM, PRETORIA

Francis Thackeray

Francis Thackeray travelled around the world in 18 days in April. He attended a databasing conference at the American Museum of Natural History in New York, with funding from the Wenner Gren Foundation for Anthropological Research. The exhibitions on vertebrate evolution (including therapsids) and hominids (a new exhibition set up by Ian Tattersall) were very impressive. Francis then went on to Australia to attend a World Heritage conference at Mildura, where he presented a paper on the Cradle of Humankind World Heritage Site. He was privileged to visit the Lake Mungo hominid site (about 41,000 years old), with aboriginal elders of the Three Traditional Tribal Groups, Jim Bowler and other scientists.

Francis had travelled to Australia from New York via San Francisco to Hawaii for 36 hours during a weekend. Shortly after arriving in Honolulu, he saw a most spectacular sunset from the famous Waikiki beach. In solitude, under a palm tree, he proposed a toast "To family and friends around the world". Next day he took a small aeroplane to Big Island, and saw an absolutely amazing active volcano from a helicopter. It was intriguing to see volcanic lava that had been laid down in almost horizontal beds, reminiscent of sedimentary strata! An astronomer drove Francis to Mauna Kea (the highest mountain on Hawaii) to see the awesome Keck telescopes (which are used to do astronomy in stereo!). Francis arrived in time to catch the plane west to Australia, but in doing so, he crossed the international date line, going directly from Saturday 14 April to Monday 16 April. He simply did not exist on Sunday 15 April!

Francis has been in touch with the Director of the Taronga Zoo in Sydney, and intends to help with palaeontological exhibitions that related to Gondwanan heritage. Already a cast of Mrs Ples has been donated to the Taronga zoo for educational purposes. More casts (including replicas of therapsids) will be made available at a later stage to supplement the Taronga Zoo's exhibitions on Gondwana, and to promote awareness of South African and Australian heritage. It is hoped that the Transvaal Museum will obtain casts of Australian monotremes (including platypus) for new displays. It was amazing to see a live platypus in the Taronga zoo, and to see skulls and skeletons of this beast not only in the Australian Museum in Sydney but also in Oxford with Tom Kemp, and at the AMNH in New York.

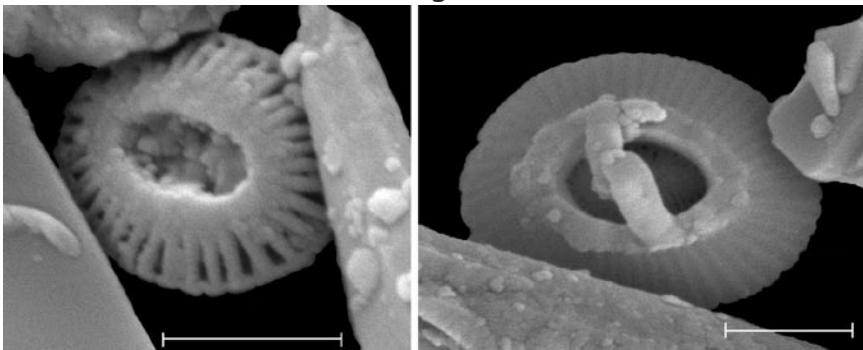
The evolutionary origin of marsupials and monotremes is an intriguing issue, both from a palaeontological as well as a genetic perspective. A recent article in *Nature* deals with the genome of the opossum, compared to the genomes of mammals and birds. It is interesting to try to integrate the genetic and palaeontological data in the context of early mammalian ancestors. Francis is already working on genetic data, using the same kind of statistical analysis that he has applied to mammals and reptiles. There is some time to fit in research, in addition to the duties of being the Director of the Transvaal Museum.

UNIVERSITY OF KWAZULU-NATAL

Maria Ovechkina

Marine Geoscience Unit & Council for Geoscience, Durban

Calcareous nannoplankton has been probably among the most neglected fossil groups in southern Africa despite the fact that it is a very important group in stratigraphy of marine Mesozoic and Cainozoic sediments and reconstruction of palaeoenvironmental conditions due to the minute size of the organisms and sub-global distribution. Since I started my postdoc research at the Marine Geoscience Unit in 2006, I have been busy working on offshore Cainozoic aeolianite and beachrock samples from KwaZulu-Natal. I was able to indicate a late Middle Pleistocene to Holocene (calcareous nannofossil zone NN21) age for the Aliwal Shoal, which has been a source of dispute since the 1960s, with suggested ages ranging from the Pliocene to Quaternary. My work is still in progress and I expect more exciting results. The nannofossil chronology can definitely be used on a wider basis in southern Africa as a relatively cheap and effective method of dating Cretaceous and Cainozoic deposits. I also developed and presented an introductory course on Micropalaeontology for students of the School of Geological Sciences, UKZN.



Scanning electron micrographs of calcareous nannoplankton from the Aliwal Shoal beachrock and aeolianite samples: *Emiliana huxleyi* (left) and *Gephyrocapsa oceanica* (right). Scale bars = 2 μ m.

Recent publications:

- Ovechkina, M.N. 2007. Calcareous nannoplankton of the Upper Cretaceous (Campanian and Maastrichtian) of the southern and eastern Russian Platform. Transactions of the Paleontological Institute, Russian Academy of Sciences 288: 1-353.
- Olferiev, A.G., Beniamovskii, V.N., Vishnevskaya, V.S., Ivanov, A.V., Kopaeich, L.F., Ovechkina, M.N., Pervushov, E.M., Seltser, V.B., Tesakova, E.M., Kharitonov, V.M., Shcherbinina, E.A. (in press). Upper Cretaceous deposits from Saratov Region. Article 2. Problems of the chronostratigraphical correlation and geological history of Region. Stratigraphy and Geological Correlation.
- Bosman, C., Ovechkina, M.N., Uken, R. (in press). The Aliwal Shoal revisited: New age constraints from nannofossil assemblages. South African Journal of Geology.

Daryl Codron

School of Biological & Conservation Science, Pietermaritzburg

At the last PSSA I carried the flag for palaeontological stable isotope research in SA as a postdoctoral fellow at the Florisbad Quaternary Research Department of the National Museum. This postdoc experience, and my isolation as isotopologist, has resulted in me receiving permanent academic appointment in the School of Biological and Conservation Science at the University of KwaZulu-Natal, from where I can now pass on the scarcely communicated isotope gospel to undergraduate and postgraduate students.

I continue research collaboration with the Florisbad group - James Brink and Lloyd Rossouw. We have recently come into some wonderful data that have thrown groundbreaking light on questions related to evolutionary theory, ruminant diversification, and the Quaternary environmental history of the South African interior. We can now demonstrate craniodental adaptations to changing degrees of diet selectivity and diet quality, something only previously attempted from a theoretical standpoint. These new data also allow us to test hypotheses about mechanisms underlying faunal turnover, competition and niche differentiation,

Niche drift, and ecological generalism. Perhaps most importantly, the isotope approach allows us to upscale insights from modern to palaeoecosystems. We can now demonstrate clearly the necessity for science to bridge gaps between neoecological and palaeoecological research; evolutionary biologists must learn to draw from both fields. Our thanks go out to PAST for their patience while we waited open-mouthed for over a year to generate these data, these will be well worth the wait. And special thanks to John Lanham and Ian Newton at the University of Cape Town who, when the time came, expertly facilitated and conducted the analyses.

James, Lloyd and I are also launching a research project to test the outcomes of C_4 grassland expansion and C_4 grazing in African ruminants. Much has been speculated on the role C_4 grasslands have played in the evolution of modern African ecosystems. One question that has been raised several times is whether C_4 grazing limits the diversity of diets in African ruminants? In Africa, we are familiar with an abundance of specialist browsers and specialist grazers, but globally the most common ruminant feeding niche is the intermediate or mixed browser/grazer guild. It has been speculated that the high energetic and metabolic costs associated with consumption of C_4 grass (which are high in fibre, low in protein, have poor dry matter digestibility, and high abrasive silica content) meant that African herbivores had to become highly specialized grazers if they wanted to eat grass. In temperate regions where C_3 grasslands abound there was no need for such specialization. However, some recent studies have shown that certain non-specialist herbivores still manage to get more value for money out of C_4 compared with C_3 diets.

In collaboration with nutritional physiologists in Switzerland and Germany, we are combining a wide range of expertise to address this question from unique anatomical and physiological standpoints, and at a number of scales including modern and palaeoenvironments.

Looking forward to sharing these and other exciting results with all members of PSSA.

Isotopically yours

Daryl Codron

P.S. If the above advertisement for stable isotope research has had any positive outcomes, I can be contacted at codron@ukzn.ac.za or (033) 260 5112.

UNIVERSITY OF LIMPOPO

Johann Welman

I have taken a post at the Medunsa campus of the University of Limpopo (near Pretoria) from the beginning of April 2007, teaching palaeontology and evolution to first year medical and B.Sc. students up to post graduate levels. I am continuing with research about brain cases and skulls of Archosauromorpha and currently am involved in a project on the basicranium of the crocodylomorph *Sphenosuchus*.

NEWS FROM AROUND THE WORLD

Patrick Bender
Tasmania

Teaching maths and science at a high school up the east coast of Tassie (about 3 hours away from Hobart, near St Helens), has kept me busy since the beginning of the year. However, I am still in touch with the Tasmanian Museum and its ongoing investigations of the new Early Triassic vertebrate site on the Tasman Peninsula. I plan to visit the museum in September and get an update on some of the new finds, which apparently include lungfish toothplates, and will possibly be involved in describing these new fossils.

Arthur and Enid Cruickshank
Scotland

Enid and I move our household to the south of Scotland just before Christmas - to Hawick (No, NOT Howick, which the SA Postal Service tried as a destination for our mail many years ago!). We have settled in to our old brewery very well, and have started to review MSS and attempt to contribute to a Symposium on the Elgin Permo-Triassic fauna. See the last issue of *Palaeontologia africana* for a contribution in that field. Said Symposium will be held in late September.

Believe it or not, but I am also being co-opted to work on a text dealing with a review of the Ichthyosauria on behalf of the widow of a colleague, and Jeff Liston of the Hunterian Museum, University of Glasgow. It is quite a volume!

Both Mark Evans and Richard Forrest continue with their PhD studies into the function and relationships of the Plesiosauria, hopefully to complete sometime in the next year.

Best wishes to all,
Arthur

Ross Damiani
Staatliches Museum für Naturkunde, Stuttgart, Germany

Hello all, as this is my first Palnews contribution since leaving South Africa I thought I would give a brief overview of my activities to date.

Following my departure from SA (in late 2004) I spent several productive months as a Visiting Research Fellow at La Trobe University, Melbourne, working with Anne Warren. After that I left for the U.K. and spent most of 2005 doing nothing at all, although some relief came in the form of four fantastic weeks in the field in Laos (southeast Asia) prospecting and excavating Upper Permian terrestrial vertebrates with French and American colleagues. Hence I was thankful to be awarded a Humboldt Research Fellowship in late 2005 to work with Rainer Schoch at the SMNS in Stuttgart, Germany.

Work wise I have divided my time between (1) attempting to complete projects still held over from South Africa (a difficult proposition without easy access to the fossils!), (2) new projects on mainly German Triassic tetrapods with Rainer Schoch, and (3) editorial responsibilities for JVP. I'm very happy to be in Europe and hope to settle here, but I would really love to visit SA again in the near future to see all my friends, and the familiar faces and places!

Greetings from Europe,
Ross Damiani

Publications since 2005:

Sidor, C.A., O'Keefe, F.R., Damiani, R., Steyer, J.S., Smith, R.M.H., Larsson, H.C.E., Sereno, P.C., Ide, O. & Maga, A. 2005. Permian tetrapods from the Sahara show climate-controlled endemism in Pangaea. *Nature* 434, 886-889.

- Steyer, J.S. & Damiani, R. 2005. A giant brachyopoid temnospondyl from the Upper Triassic or Lower Jurassic of Lesotho. *Bulletin de la Société Géologique de France* 176, 243-248.
- Damiani, R., Sidor, C.A., Steyer, J.S., Smith, R.M.H., Larsson, H.C.E., Gado, B., Maga, A. & Ide, O. 2006. The vertebrate fauna of the Upper Permian of Niger. V. The primitive temnospondyl *Saharastega moradiensis*. *Journal of Vertebrate Paleontology* 26, 559-572.
- Jeannot, A.M., Damiani, R. & Rubidge, B.S. 2006. Cranial anatomy of the Early Triassic stereospondyl *Lydekkerina huxleyi* (Tetrapoda: Temnospondyli) and the taxonomy of South African lydekkerinids. *Journal of Vertebrate Paleontology* 26, 822-838.
- Steyer, J.S., Damiani, R., Sidor, C.A., O'Keefe, F.R., Larsson, H.C.E., Maga, A. & Ide, O. 2006. The vertebrate fauna of the Upper Permian of Niger. IV. *Nigerpeton ricqlesi* (Temnospondyli: Cochleosauridae), and the edopoid colonization of Gondwana. *Journal of Vertebrate Paleontology* 26, 18-28.
- Nield, C.M., Damiani, R. & Warren, A. 2006. A short-snouted trematosauroid (Tetrapoda, Temnospondyli) from the Lower Triassic of Australia: the oldest known trematosaurine. *Alcheringa* 30, 263-271.
- Warren, A.A., Damiani, R. & Yates, A.M. 2006. The South African stereospondyl *Lydekkerina huxleyi* (Tetrapoda, Temnospondyli) from the Lower Triassic of Australia. *Geological Magazine* 143, 877-886.
- Abdala, F., Damiani, R., Yates, A. & Neveling, J. 2007. A non-mammaliaform cynodont from the Upper Triassic of South Africa: a therapsid *lazarus* taxon? *Palaeontologia africana* 42, 17-23.
- Modesto, S.P. & Damiani, R. 2007. The procolophonoid reptile *Sauropareion anoplus* from the lowermost Triassic of South Africa. *Journal of Vertebrate Paleontology* 27, 337-349.
- Sidor, C.A., Steyer, J.S. & Damiani, R. 2007. *Parotosuchus* (Temnospondyli: Mastodonsauridae) from the Triassic of Antarctica. *Journal of Vertebrate Paleontology* 27, 232-235.

Norton Hiller

University of Canterbury, Christchurch, New Zealand

After receiving a gentle nudge from Rose, I got to thinking about what I had been doing over the twelve months since I last reported on my activities. As I wrote then, I continue to work

on Cenozoic and Recent brachiopods and Paleocene shark teeth, with marine reptiles on the back burner for the present.

The latest brachiopod project concerned the Australian and New Zealand occurrences of the micromorphic form, *Argyrotheca*. The work was done in collaboration with Daphne Lee and Jeffrey Robinson of Otago University. I was privileged to be able to present aspects of this project at a one-day symposium held by the Royal Society of Victoria in Melbourne in memory of Neil Archbold who died suddenly while attending the Gondwana Symposium in Argentina in 2005. Neil was one of life's true gentlemen and he will be sorely missed by colleagues throughout the world. Our paper on *Argyrotheca* will be published in a memorial volume - my second brachiopod paper in a row to go into such a volume.

It may be a comment on the length of my teeth, but it seems that more and more colleagues are going to do field work at that big locality in the sky. A Kiwi friend, Phil Maxwell, was cruelly taken from us earlier this year. Phil worked on those dreadful mollusc things, but his knowledge of stratigraphy and localities was second to none, and he was generous in supplying specimens to colleagues working on other groups. My current brachiopod work is based on specimens collected originally by Phil and subsequently by both of us. He is already being missed.

On a happier note, it was great catching up with Rob Gess at the CAVEPS meeting in Melbourne just after Easter and hearing news of what is happening in SA. I really will have to make an effort to get funding to attend the Matjiesfontein meeting.

Publication

- Scofield, R.P., Hiller, N. and Mannering, A.A. 2006 A fossil diving petrel (Aves: Pelecanoididae) from the mid-Miocene of North Canterbury, New Zealand. *Records of the Canterbury Museum* 20: 65-71.

Heidi (Anderson) and Keith Holmes Dorrigo, Australia

We are busy with the final touches to the next paper on the Nymboida Triassic Flora. This is part 7 on the Cycadophyta. Part 6 on the Ginkgophyta was published in 2007 Proc. Linn. Soc. NSW Vol,128.

In April we were fortunate in being able to go with Lynne Bean of Australian National University to the famous Jurassic Talbragar Fish locality that also yields beautiful plants. She is doing a PhD on the palaeoenvironment of the fishes etc. and held a special permit to collect from this protected site.



The awful news for palaeobotanists is that a year ago the Reserve Quarry at Nymboida was 'restored' and the outcrop bulldozed and covered up into a featureless landscape. Fortunately Keith has collected there for over 30 years and has a good collection.

On the 27th May, Keith had a phone call from Grafton to say that the quarry was active again in the far SW corner. So Keith tracked me down at the shops and we rushed home to pack our collecting gear and makings of sandwiches. Soon after midday

we were on the winding road, past tree ferns and bellbirds singing in the gum trees. At the far end of the now smooth quarry was a recently excavated mound, hundreds of blocks all covered with a thick layer of buff dust. We attacked every promising slab near the lower edge but it was disappointing to mainly find roots. In the section there are two coaly layers, root layers (with modern roots in the cracks) and high up a loose block revealed a good Kurtzia. But we could not find a good layer easy to split with plants. Keith was disappointed and said this side of the quarry was never much good. However there are plants and in a small block I found a good fern and Keith took back a few pieces of cycad. If only we had a magic wand that would reveal what is hidden in every block. A local bus shelter has a map and bright murals.



In the winter months Heidi will be working on the Molteno Plants in Pretoria, this time preparing the Sphenophytes for publication. The book on the Molteno ferns and the volume on gymnosperm classification are both in press and due out soon.

Regards Heidi and Keith

Helke Mocke

Geological Survey of Namibia

From the 18 April to the 5 May this year I had the pleasure of visiting the Sperrgebiet in Namibia with the French Palaeontological Team headed by Dr Pickford and Dr Senut. This area is well known for Miocene mammals, which Drs Pickford and Senut have been studying for the past 10 years. We made some wonderful discoveries including new evidence for aardvark at the site Grillental Borrow Pits. Dr Pickford noted that we had a good year for finding pigs coinciding with the "Year of the Pig". The team then visited the Etosha National Park during the month of May and made excellent discoveries there of fossil fishes, snails, crocodile, tortoise and ruminants adapted to very wet conditions. Their research continues in this area.

Anne Warren

La Trobe University, Melbourne, Australia

Anne Warren is approaching retirement but has been invited to join Andrew Rozefelds (Tasmanian Museum and Art Gallery) and Patrick Bender on a new project in the Tasmanian Early Triassic. A fauna of temnospondyls (the best yet for Tasmania), lungfish, actinopterygians, and a dicynodont are being excavated from a site on the Tasman peninsula. Temnospondyls include a plesiomorphic brachyopid, a probable tupilakosaur, and others.

Kate Parker has had her paper on the geology of the Early Carboniferous Ducabrook site accepted and is moving on to the final phase of her PhD, on the rhizodontids from Horton Bluff and Ducabrook. Jillian Garvey has returned to Archaeology and is in the middle of a Postdoctoral appointment working on ice age hunters of Tasmania. Kat Pawley finished her PhD and is looking for a Postdoctoral appointment while writing up the last papers from her PhD. Tim Holland has gone to do a PhD with John Long at Museum Victoria.

Publications in the last two years:

- Warren, A. and Turner, S. 2006. Tooth histology patterns in early tetrapods and the presence of 'dark dentine'. Transactions of the Royal Society of Edinburgh: Earth sciences 96: 113-130.
- Pawley, K. and Warren, A. 2006. The appendicular skeleton of Eryops megacephalus Cope (Temnospondyli: Euskelia) from the Lower Permian of North America. Journal of Paleontology 80: 561-580.
- Warren, A. Damiani, R. and Yates, A. M. 2006. The South African stereospondyl *Lydekkerina huxleyi* (Tetrapoda, Temnospondyli) from the Lower Triassic of Australia. Geological Magazine 143:877-886.
- Nield, C.M., Warren, A. and Damiani, R. 2006. The first short-snouted trematosauroid (Tetrapoda, Temnospondyli) from the Lower Triassic of Australia: the oldest known trematosaurine. Alcheringa 30: 263-271.
- Holland, T. M., Long, J. A., Warren, A. and Garvey, J. M. 2006. Second specimen of the lower actinopterygian *Novogonatodus kasantsevae* Long 1988 from the Early Carboniferous of Mansfield, Victoria. Proceedings of the Royal Society of Victoria 118:1-10.
- Warren, A. A. 2006. Origin and radiation of the amphibians, pp227-236 in Merrick, J. R., Archer, M., Hickey, G. M., and M. S. Y. Lee (eds) Evolution and Biogeography of Australasian Vertebrates. Auscipub Pty Ltd, Sydney.
- Holland, T. M., Warren, A., Johanson, Z., Long, J., Parker, K. and Garvey, J. 2007. A new species of Barameda (Rhizodontida) and heterochrony in the rhizodontid pectoral fin. Journal of Vertebrate Paleontology 27:295-315.

PALAEOPOETRY

Paleontologie

Per motor oor die ribbetjiemaer veld is jy naby.
Nader nog te voet, skoensole links regs op skalie,
aan 'n verlede waarmee jy meen jy het niks gemeen,
was dit nie dat jy lewe is en dit lewe was:
geskubde kloue hot haar op turf, deur stoom,
en hier en plek-plek die groen van gewasse,
waaierend krullend spoordraend wasagtig.
Dié plek, nou winddroog, nou brandend groot,
suisend van stilte sodat jou stem klip word,
ontvang jou skrede van skoeisel, jou
beslaande afdruk, tweevoetig, jou kykstaan
net soos 'n meerkat oor wat op sy uiteinde
verklaar tot lug, ontvang jou omvattende kennis,
jou bukkende gegrou na sy verkliptheid
onder die dor en die ghaap, jou kundige sif,
jou rekonstruksie en monteer met draad en klamp
van been by been van nog en van nog
geskubdes, gepantserdes, ontvang die operasie,
duld die dröe keisersnee asof dit donga is.
Duld jou verrukking. Want diep en verdraagsaam
die sterfbedding en lydsam aardse ontvangenis
en niks so onunieks soos die geboorte van 'n mens.

Stockenström, Wilma. 1976. *Paleontologie*. Van vergetelheid
en van glans. Kaapstad: Human & Rousseau. p.34



Palaeontology

By car across the skeletal veld you are close.
Closer still on foot, outsoles left right on shale,
To a past with which you seem to have nothing in common
Were you not life now and this life that was:
Scaled claws left right on turf, through steam
And here and in places the green of growth,
Fanlike coiling spore-bearing waxy.
This place, wind-dried now, blazingly vast,
buzzing with silence so that your voice turns to stone,
receives the stride of your shoes,
your shod imprints, two-footed, your stretch,
meerkat-like, to look at what at the fringes
clears to air, receives your all-embracing knowledge,
your crouched burrowing to the stoniness
beneath the barrenness and the ghaap, your skilful sieve,
your reconstructing and assembling with wire and clamp
of bone onto bone of more and yet more
scaled ones, armoured ones, receives the operation,
endures the dry caesarean as if it were a donga.
Endures your rapture. For deep and patient
the death-bed and meek earthy conception
and nothing as unremarkable as the birth of a man.

Stockenström, Wilma; De Lange, Johann (Translator). 2007. *Paleontologie*.
The Wisdom of Water. Cape Town: Human & Rousseau. p.44.

THE PSSA LOGO: A PERSONAL HISTORY

Mike Raath

The wish to have a unique emblem or logo for the PSSA is as old as the Society itself. From the very beginnings back in the mid-seventies, discussions around PSSA social events almost inevitably turned to the question of how to represent and portray the multiplicity of disciplinary strands that make up this wide-ranging science of ours - Palaeontology. How do you combine plants, vertebrates, invertebrates, microfossils, nanofossils, ichnofossils, etc., etc., into a single graphic design that is uncluttered, meaningful and capable of infinite enlargement or reduction so that it can be used on anything from posters and banners to letterheads and business cards?

Although it was often discussed, it was not until the Society was nearly four years old that the quest for a logo gained a formal push. An item appeared in Volume 2 (2) of Pal News published in April 1980, headed "Wanted: an emblem for the Society". It invited members to submit designs in a competition that promised a prize of R20.00 for the winning design. (As an aside, even then R20.00 was not an irresistible incentive to get drawing, but then we all know that none of us are in this game of palaeontology for the money!) The article laid out these stipulations: "The successful emblem must include the Afrikaans and English abbreviations of the Society's name (PVSA-PSSA) and convey the idea that fossils are the subject of study."

Potential designers were asked to remember that the term fossils included everything from plants to poop (coprolites). The closing date for the competition was set at 30 September 1980, with a promise that designs which met the stipulated requirements would be published in the October 1980 edition of Pal News, the winner to be judged by the readers.

By the time the October 1980 edition went to press, only one submission had been received (Pal News 2(3): 16-17), a design by the late Dr AS ('Ian') Brink, then working at the Geological Survey in Pretoria. His simple yet striking design was accompanied by a detailed description in quasi-heraldic terms highlighting how different interpretations of the graphic could symbolise different areas of palaeontology.



The basic heraldic motif is the flame of a torch.

This is converted into a family-tree motif, which is most widely used in all branches of Palaeontology. This family-tree motif embodies all aspects of palaeontological philosophy: adaptive radiation, cladogenetic diversification, anagenetic advance,

convergent evolution, parallel evolution, evolution in general, stratification or biozonation, the geological time scale briefly, acme zones etc.

The Society's initials, bilingually, also act as if they are abbreviations of annotations.

It considers the palaeobotanist, where it could be interpreted as a plant leaf, flower or fructification;

It considers the micropalaeontologist, where it could be interpreted as some kind of microorganism;

It considers the invertebrate palaeontologist, where it could represent, for example, a cross section through a lamellibranch;

It considers the vertebrate palaeontologist, where it could symbolise a finned fish, four-legged tetrapod, winged bird, or mammalian ears or antlers;

It considers the palaeo-anthropologist, where it symbolises fire which profoundly influenced the origin of Man;

It considers the field of trace fossils, where it could be interpreted as a footprint.

A closing paragraph in the Pal News article voiced the hope that the question of the emblem could be finalised at the Second Conference of the Society due to be held in Pretoria in 1982.

Ian Brink's detailed and thoughtful submission, however, found little favour with the membership, and other designs started to trickle in. By the time Volume 2(4) was published in December 1981, two further lots of designs had been received and were published in that issue (Pal News 2(4): 7-11). Three of the submitted designs were preliminary sketches showing an anonymous vertebrate (?a dicynodont) feeding on anonymous plants (?glossopterids) over strata containing other buried fossils. The other submission was a joint effort by Juri van den Heever and Fred Grine, drawn by Cedric Hunter, all at that time of the South African Museum in Cape Town. It depicted a stylised *Lystrosaurus* skull in frontal view with a heraldic scroll underneath bearing the Society's initials in English and Afrikaans. As is clear from a glance at this original submission (see below), it is essentially the logo our Society uses to this day, and the rest of this article traces the meandering path that the selection of the logo wandered over the ensuing several years as recorded in Pal News or as recalled from my own memories of the times.

The motivation which accompanied the van den Heever / Grine / Hunter design reads:



(1). *In view of the various disciplines in palaeobiology, an emblem which attempts to represent each branch would have to be so vague as to be meaningless or, alternatively, it would consist of an artistically impractical agglomeration of symbolic elements.*

(2). *Whilst all branches of palaeontology are of equal importance the therapsids*

(mammal-like reptiles) are probably the most well-known South African fossils because of their unique evolutionary context.

(3). *Amongst the Therapsida, Lystrosaurus occupies a central position in as much as it is found in the middle of the Beaufort sediments. Furthermore, Lystrosaurus is not only abundant in South Africa, but it is also represented in the various elements of Gondwanaland. This genus thus serves as an excellent palaeogeographic link.*

(4). *Therefore, we suggest, as a Society emblem, a graphic reconstruction of an idealized Lystrosaurus skull in frontal view. The initials of the Society appear, in both English and Afrikaans, below the skull in a simple legible manner. We feel that this emblem is immediately recognisable and would be suitable for use on letterheads and Society publications, and as lapel badges, tie pins, etc.*

This was all happening barely ten years after James Kitching's highly successful fossil-collecting interlude in Antarctica in 1970 as part of the US Antarctic Research Program, where he had found not only *Lystrosaurus*, but other typical elements of the South African *Lystrosaurus* Zone fauna in the Transantarctic mountains, including *Thrinaxodon* and *Procolophon*, thereby providing incontrovertible palaeontological proof of former dry-land connection between Africa and Antarctica. James once told me on his return from that trip that when he was first put down in the field in Antarctica, he looked around and immediately felt that if he could just blow away the snow and the ice, he might as well be standing somewhere near Bethulie in the Free State!

Publication of the van den Heever-Grine-Hunter *Lystrosaurus* design unleashed a veritable flood of variations on much the same theme, together with a few of completely different design, which appeared in Pal News 3(1) in June 1982. This crop also included by far the most artistic - and intricate - design of all

those submitted, one designed by Imogen Chesselet. It is worth repeating her tongue-in-cheek motivation:



The Ginkgo leaf represents the palaeobotanists. Karoo palaeontologists are symbolised by a dicynodont humerus, geologists by their implement, invertebrate palaeontologists by an ammonite, and the head-hunters by Mrs Ples. The rather piratical aspect of the design refers to palaeontology's rather piratical past.

The next mention of the Society's emblem appears in Pal News 3 (2/3) for October 1983, where it is reported that the General Meeting held in Pretoria on 8 July 1982 had decided to postpone choice of a logo. No reasons for the decision are recorded, but as far as memory serves it all came down to some fairly vocal objections, led mainly by Ian Brink, that heraldic principles and constraints were being ignored. Brink had previously suggested that the Society should seek advice and guidance from the Bureau for Heraldry in Pretoria, but his suggestion had not been taken up. Later in the same issue of Pal News members were informed that Brink would be drawing up a document setting out heraldic guidelines for future designers, which he duly did in the following issue of Pal News (vol. 3(4), June 1984: pp 17-18). Again, however, it had little impact on the membership, who mostly felt that Brink's insistence on following heraldic principles and protocol was 'overkill' for a simple society logo. But the impasse had the effect of stalling the quest for a logo.

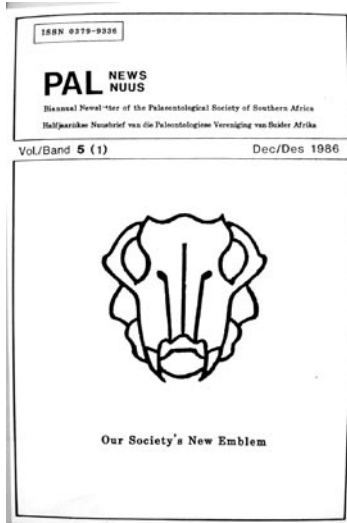
At the General Meeting in Stellenbosch on 16 July 1984 the matter was rekindled when a Working Group consisting of Imogen Chesselet, Ian Brink and myself was appointed to investigate the whole matter and report back on how to proceed at the next General Meeting, due to be held in Cape Town in 1986.

The final chapter duly played out at the 4th General Meeting in Cape Town on 24 September 1986 - almost exactly twenty years ago at the date of writing this historical note, and more than six years after the first call for designs had been published in April 1980. Under item 9. "Society Emblem", the minutes of the Cape Town meeting read:

"The report of the Working Group set up at the Stellenbosch Meeting, consisting of Mrs Chesselet, Dr Brink and Prof Raath, was read. It reaffirmed that what the Society wanted at this stage was not a Coat of Arms, but rather a simple "logo" or emblem mainly for use on stationery and other such items (i.e. a letterhead logo). It was noted that 19 entries had been submitted in terms of the original design competition, and the meeting was now requested to decide whether it wished to adopt one of those designs or begin again.

It was agreed to adopt as the Society emblem the design submitted by Dr F Grine and Mr J van den Heever (drawn by Mr C Hunter), namely a stylised frontal view of the skull of *Lystrosaurus*, but without the scroll that accompanied it in the original design. (Proposed Dr AS Brink, Seconded, Dr QB Hendey). It was suggested that the Society should consider commissioning ties, scarves, etc, featuring the emblem, as these are popular as 'collectables'.

I can report that the vote, if not unanimous, was certainly overwhelmingly affirmative, probably with nobody opposed. Indeed, the person chiefly responsible for the delays in choosing a logo, Ian Brink, actually proposed the adoption. And that issue of Pal News carried the new Society emblem prominently on the front cover, and it has been our symbol ever since. So far its main use has been to decorate the front cover of Pal News (except for the first electronic issue, where its absence prompted an immediate and anguished protest from me.



Thank you, Mr Editor, for restoring it so promptly!), and on Biennial Conference stationery, but Bruce Rubidge also fulfilled one of the original hopes of the designers when in Johannesburg in 1992 he introduced logo-bearing clothing accessories -- ties for the men and purses for the ladies.

My own PSSA tie is now showing such obvious signs of dedicated attendance at successive Society braais, cocktail parties, dinners and general booze-ups that I hardly dare show it in public

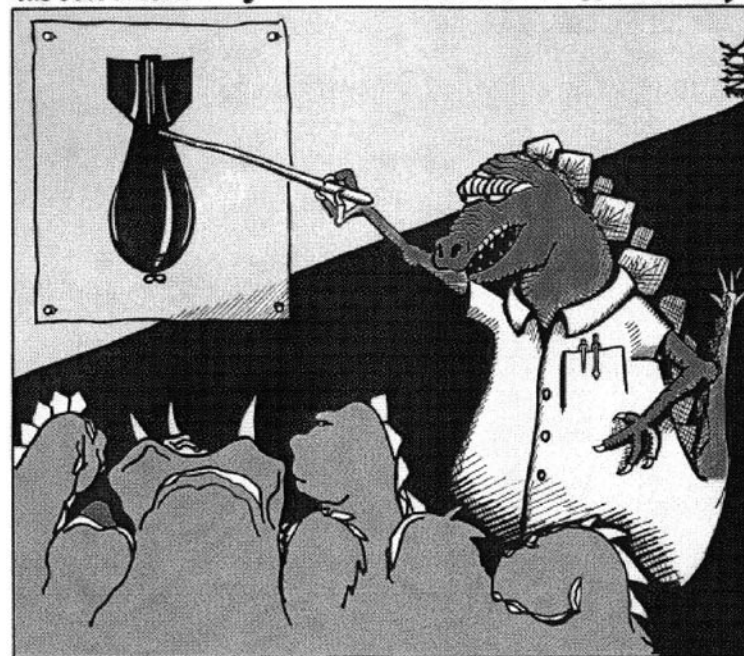
other than at PSSA functions, where I know everybody will understand! Bruce tells me he still has a small stock of the ties, for those that still wear such apparently anachronistic sartorial accessories.

Also, at that Cape Town conference where the logo was at last formally adopted, Juri van den Heever, as leader of the Organising Committee for the Conference, had

several souvenir items made which bore a version of the logo - coffee mugs, car licence disc stickers and the conference document folders. He assured us all at the time that this was not done in any attempt to influence the vote, but few believed him! I still have my set of four mugs which I bought then, and I treasure them as unique mementos not only of a wonderful conference, but as a reminder of an interesting little episode in the history of our Society in which I am happy that I was involved, albeit peripherally.



The real reason for geochemical anomalies at the K-T boundary



"Fellow dinosaurs, let me present to you the most technologically-advanced and powerful weapon ever devised by our kind—the Iridium Bomb."

FURTHER COMMENTS ON PILTDOWN AND TEILHARD DE CHARDIN: "SUSPECT AND A SUBJECT FOR JOKES"

J.F. Thackeray

Transvaal Museum, P.O. Box 413, Pretoria 0001, thack@nfi.co.za

I have previously written in PalNews about the possibility that a French theologian and palaeontologist, Teilhard de Chardin, may have been involved with the saga of "Piltdown Man", about 100 years ago. A human cranium and an orangutan jaw had been "planted" together in gravels at Piltdown in Sussex, England. It was believed that bones of Pleistocene animals were associated with the primate remains. It was not until Kenneth Oakley of the British Museum (Natural History) undertook chemical analyses of the fossils that the hoax was exposed.

In my earlier contributions to PalNews on the subject of Piltdown, I took the view that Teilhard de Chardin was involved as one of the "jokers" in a joke that went wrong. He had collected fossils in the Piltdown area while he was being trained as a Jesuit priest in Sussex in England, not far from Piltdown. He returned to France in 1912, studying palaeontology in Paris under Marcellin Boule, then the leading French palaeontologist. While Teilhard was in France, a formal announcement of the discovery of "Eoanthropus" (early man from Piltdown) was made by Woodward (a fossil fish expert) in London. Almost immediately after receiving news of this announcement, Teilhard wrote to his friend Felix Pelletier, with whom he had collected fossils in Sussex. He wrote to say that they should "do nothing". He said that his supervisor, Professor Boule, would not be "taken in". He went on to say that criticisms of the Piltdown fossils "would follow". It appears as if Teilhard was actually anticipating criticisms.

In January, 1913, Teilhard published a short contribution in *Etudes*. This text was translated in English and published in the volume

called "The Appearance of Man" (Harper and Row, New York, 1956). It is extraordinary (as noted also by the late Stephen Jay Gould) that Teilhard makes no reference to Piltdown in this or many other articles. But the very first paragraph of the article is amazing. It begins

"There was a time when prehistory was deservedly suspect and a subject for jokes".

To my mind, this reference to jokes in the context of palaeontology and archaeology, at the very beginning of an article published in January 1913 soon after the announcement of the acceptance of "Piltdown Man" in London, must be seen in relation to the possibility that Teilhard was himself one of the jokers associated with Piltdown. After all, again at Piltdown in 1913, it was he who "discovered" a primate canine which was painted red (not stained brown). Previously in PalNews, I have suggested that in mid-1913, Teilhard was anxious to expose a joke that had gone too far. Unfortunately, the red canine was accepted by Woodward and not recognised as a possible signal by a joker to end the joke immediately. Unfortunately, it took about 40 years for the joke to be exposed.

Thirty-five years ago I spoke to Kenneth Oakley in Kensington in London, and we discussed the possible role that Teilhard de Chardin might have played at Piltdown. Oakley mentioned to me that in the 1950s, Teilhard was reluctant to talk about the subject, and he had been suspiciously recalcitrant at the exhibition at the Natural History Museum when the joke was exposed.

Louis Leakey is known to have suspected Teilhard as a perpetrator of a Piltdown joke, but Leakey did not publish his views at the insistence of his wife Mary. Perhaps it is time for Leakey's unpublished notes on this subject to be revealed.

BOOK REVIEW

"RIDDLES IN STONE"

by Hugh V. Eales

Professor Emeritus of Geology, Rhodes University.
Published by Wits University Press, 361p.

It is no small feat for a scholar to produce a popular work. Popular science is more often, the preserve of journalists who distil the matter of scholarly discourse into articles of general appeal, often ignoring accuracy or proper attribution of ideas in the process. In his book, "Riddles in Stone", Hugh Eales, Emeritus Professor of Geology, Rhodes University, has produced a work of popular appeal and great academic integrity, in which he displays an uncanny ability to disentangle even the most convoluted debates on a variety of topics.

As pointed out in the preface, the book was originally intended to be a catalogue of "bad calls" made by both academics and laymen in the unfolding of the geological sciences. Not surprisingly, Eales does not pull his punches in exposing the muddled ideas and vanities of many influential thinkers, both past and present. The role of formalised religion and its lamentable efforts through the years to suppress both the truth and indeed, the very contemplation of it, is exposed to sober and disciplined reason. But Eales does not confine himself to wry comments on the effects of religious bigotry. Great scientists are as likely as other mortals to deny the logic of others, more especially so if they are facing the repudiation of the very hypotheses on which their fame has been founded. The elitism which saw the ground-breaking ideas of the self-taught William Smith go largely unrecognised for several decades is only one such example in a litany of neglect. Of course, the "bad calls" on which the book is based, concern a variety of controversial topics, ranging from the age of the Earth to the

concept of a world-wide "Biblical" flood and the origin of the Witwatersrand gold deposits, all of which may occasionally invite emotional rather than carefully thought-out responses.

"Riddles in Stone" is not, however, simply a record of bad and/or stupid ideas. Eales pays tribute where it is due. It was particularly pleasing to see Alex du Toit, arguably the greatest of South African geologists, given a proper accolade for his efforts to promote the concept of continental drift in the face of a (then) unbelieving world. I must confess to having been greatly disappointed on reading Bill Bryson's "A Short History of Nearly Everything" to discover that although Bryson had covered, in some detail, the topic of continental drift, there was no mention of du Toit at all. Hugh Eales has put the record straight.

South African geology and a number of related geo-dilemmas are the topics covered in the latter part of "Riddles in Stone". Ranging from the horrors of asbestosis to the more enticing subject of untold riches from the fecund Earth, the author investigates a variety of enigmatic issues. Here is an outline of the misguided plans put forward by E.H.L. Schwarz to change the climate of Southern Africa by diverting the flow of the Cunene, Okavango and Chobe rivers, thus flooding the Etosha and Makarikari depressions; laypersons guides to the probable origins of diamondiferous kimberlite pipes and the platinum-bearing rocks of the Bushveld Complex, and a fascinating account of ancient mining and the legendary gold deposits of Ophir.

Despite its intended public target, "Riddles in Stone" is a very well-documented and scholarly work. All the sources are properly and meticulously referenced, and there is a comprehensive index. It is a great tribute to the skills of the author that he has made complicated and controversial ideas so

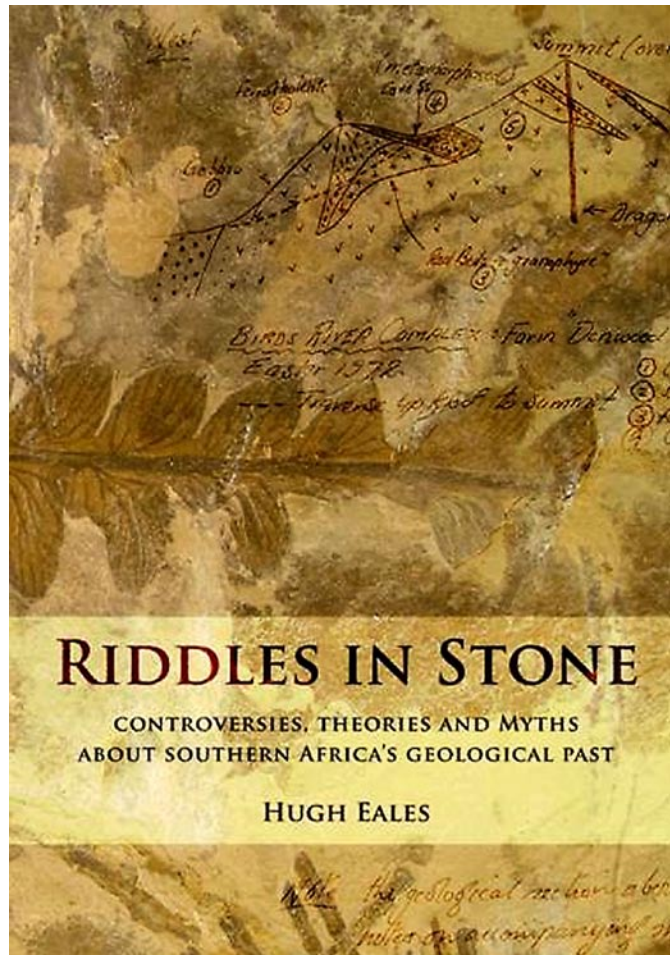
clear to the ordinary reader. It is not really surprising that he has done so: a few extracts of his personal diary included in the text reveal an early capacity for constructing passages of rare eloquence.

Russell W. Shone

Port Elizabeth

5/7/2007

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A NEW BOOK ON EARTH SCIENCE FROM WITS UNIVERSITY PRESS

RIDDLES IN STONE

by Hugh Eales

This is a fast-moving book covering the controversies of early days in the evolution of geological science, from the times of the Greeks and Romans, up to the 19th Century, and then the subsequent explosive growth of the science in Southern Africa – one of the most geologically exciting places on the face of the Earth. Here is a region internationally famed for its unique economic mineral deposits, its wealth of fossils, and for the antiquity of its rocks. Written in popular style for geologists, geographers, biologists, chemists and physicists, this book uses everyday non-technical language that will appeal equally well to the non-specialist, layperson, school-leaver or anyone with an interest in the history of our Earth.

The text is divided into four parts:-

Part 1: From Pythagoras to Plate Tectonics. Age of the Earth. Scenarios for an Apocalyptic end. Earth expanding or contracting? Earth's deep interior - hot, cold, gaseous, liquid or solid? Vredefort – site of the Earth's oldest and greatest meteorite impact scar. Noah's Flood in the light of modern science. Continental drift and Alex du Toit's remarkable contribution, and the subsequent evolution of Plate Tectonics in the 20th Century.

Part 2: Early Tangles in Southern Africa. Dwyka Tillite, or Bain's 'Claystone Porphyry'. The Cape and Transvaal – a geological misalliance under the Karoo blanket. Schwarz's Kalahari Scheme. The Bushveld Complex. The Tswaing impact crater near Pretoria. Skoemakerskop quartz porphyry.

Part 3: Fossils. Bizarre early ideas on their origin. Fossils and the origin of life. Evolution and possible causes of extinction. Hoaxes and errors.

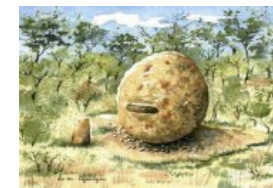


Did Life begin on the surfaces of crystals such as these, or can we accept the Biblical doctrine of Creation – Adam and Eve as depicted in this stone frieze from a 9th Century stone church in Ireland?



Part 4: Southern Africa's Mineral Wealth. Gemstones – medieval ideas on their magical properties. The Namaqualand copper bubble. Asbestos – villain or scapegoat? The Cape ruby and its significance. Diamonds – history, genesis and mining. Gold of the Witwatersrand and the crisis of 1890. Gold – the mines of the mysterious 'Ancient People' of Zimbabwe. Platinum – the metal that grew from ugly duckling to swan.

Prehistoric Rock crusher used by 'the Ancient People' of Zimbabwe for treating rich gold ore. Was this region the site of the Biblical Ophir?

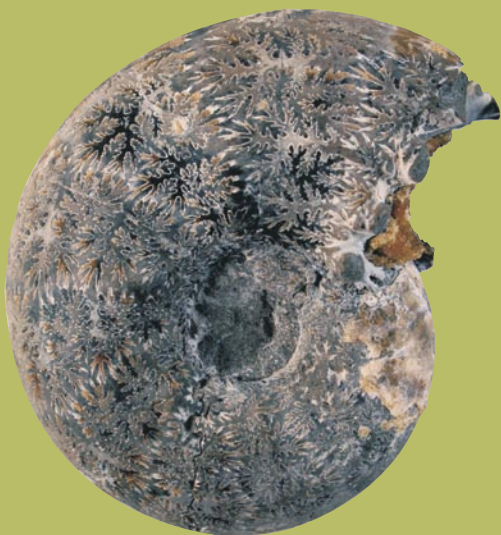


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FORTHCOMING PALAEO-CONFERENCES

See the Palaeontological Association website, for announcements of a variety of "palaeo" conferences:

<http://www.palass.org/modules.php?name=palaeo&sec=meetings&page=55>

Also see: <http://www.goingtomeet.com>

Horned Dinosaur Symposium

Sep 22, 2007 - Sep 23, 2007

Royal Tyrrell Museum, Drumheller, Alberta Canada

<http://www.tyrrellmuseum.com/horned-symposium/index.php>

Donald Brinkman: don.brinkman@gov.ab.ca

40th Anniversary Symposium on Early Vertebrates / Lower Vertebrates

Aug 13, 2007 - Aug 16, 2007

Uppsala University, Sweden

<http://www.fu.uu.se/eo/earlyvertebrates2007/>

Paleontological Society Annual Meeting

28-31 October, 2007

To be held at the GSA annual meeting, in Denver, Colorado.

http://www.paleosoc.org/2007_Denver_GSA.html

SVP - 67th meeting of the Society of Vertebrate Paleontology

17 - 20 October 2007

Austin Texas, US

<http://www.vertpaleo.org/meetings/index.cfm>

51st Annual Meeting of the Palaeontological Association

December 16-19th, 2007, Uppsala, Sweden

Organiser: Dr. Graham Budd, Palaeobiology, Department of Earth Sciences; Uppsala University: Uppsala2007@palass.org

XXIII International Congress of Entomology (ICE 2008)

6 - 12 July 2008

International Convention Centre, Durban, South Africa

<http://www.ice2008.org.za>

info@ice2008.org.za

Organiser: R.M. Crewe: robin.crewe@up.ac.za

8th International Organisation of Palaeobotany Conference

30th August - 5th September 2008

Bonn, Germany, in close conjunction with the 12th International Palynological Congress.

<http://www.paleontology.uni-bonn.de/>

Organisers: Prof. Hans Kerp: kerp@uni-muenster.de

Prof. Thomas Litt: t.litt@uni-bonn.de

15th Biennial Meeting of the PSSA

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

Matjiesfontein, Western Cape.

Provisional dates: 12-16 September, 2008

Organisers: John Almond: naturaviva@universe.co.za;

Roger Smith: rsmith@iziko.org.za;

Thalassa Matthews: tmatthews@iziko.org.za

"GONDWANA 13" Conference

15 - 22 September 2008.

Dali, Yunnan Province, China

<http://www.conferencenet.org/conference/GONDWANA/html/callforpaper.html>

CAVEPS - 12th Conference on Vertebrate Evolution, Palaeontology and Systematics

Probably to be held in Darwin, Australia around April 2009.

LINKS

PSSA website:

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

Useful palaeo website with lots of links:

<http://www.paleoportal.org/>

This is a great site for working out **exchange rates** when planning your next overseas conference:

<http://www.xe.net/>

International Code for Zoological Nomenclature:

<http://www.iczn.org/iczn/index.jsp>

A must for taxonomists.

International Code for Botanical Nomenclature:

<http://www.bgbm.fu-berlin.de/iapt/nomenclature/code/SaintLouis/0000St.Luistitle.htm>

Only the St. Louis Code is currently available online, but the Vienna Code is due for release online this month.

See the website of the International Association for Plant Taxonomy: http://www.botanik.univie.ac.at/iapt/index_layer.php

Curiosities of Biological Nomenclature:

<http://home.earthlink.net/~misaak/taxonomy.html>

Take a look at this humorous link from Billy de Klerk - a fascinating and amusing collection of nomenclatural oddities.

For example:

Bangiomorpha pubescens Butterfield, 2000 (fossil red alga) The fossil shows the first recorded sex act, 1.2 billion years ago. The "bang" in the name was intended as a euphemism for sex. Check out the ribald section.

- Billy de Klerk

These are some of my favourites! - ed.

Apopyllus now Platnick & Shadab, 1984 (spider)

Ba humbugi Solem, 1983 (endodontoid snail) from Mba island, Fiji.

Cyclocephala nodanotherwon Ratcliffe (scarab) Ratcliffe described several others in this large genus.

Eubetia bigaulae Brown (tortricid moth) pronounced "youbetcha bygolly".

Notnops, *Taintnops*, *Tisentnops* Platnick, 1994 (caponiid spiders) These Chilean spiders were originally placed in the genus *Nops*, but Platnick separated them into these new genera when he reexamined them.

Verae peculya Marsh, 1993 (braconid)

Vini vidivici Steadman & Zarriello, 1987 (a recently extinct parrot from the Marquesas Islands) The genus *Vini* has been in use since 1831.

Iyaiyai Evenhuis, 1994 (fossil chaoborid fly) Evenhuis originally proposed "I" as the genus name (allowed by the ICZN rules), but a chaoborid worker told him he didn't want ever to have to write in a paper that "I have small male genitalia", so Evenhuis changed it to a more Mexican sounding genus name.

The following palaeoentomological links were provided by Mike Mostovski, Natal Museum - thanks Mike!

International Palaeoentomological Society:

<http://fossilinsects.net>

Official site of the International Palaeoentomological Society (IPS), whose aim it is to promote research of fossil insects and other non-marine arthropods. The Web site contains an extensive library with downloadable PDFs, calendar of events, useful links, photographs, and an invitation to membership.

Palaeoentomology in Russia:

<http://palaeoentomolog.ru>

This Web site outlines the history and the present state of palaeoentomology in Russia. Catalogues of fossil insect collections, photographs, scientific and popular publications, links, personal Web pages are available. In both English and Russian.

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FRIDAY 25 JANUARY 2008