

**BIANNUAL NEWSLETTER OF THE PALAEOLOGICAL SOCIETY
OF SOUTHERN AFRICA.**

**(HALFJAARLIKSE NUUSBRIEF VAN DIE PALEONTOLOGIESE VERENIGING VAN
SUIDER AFRIKA.)**

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Front cover: John Nyaphuli, most recent recipient of PSSA Honorary Membership, posing with the specimen of *Tapinocaninus* he discovered, and partially prepared.

Editorial

Halo all!

Welcome to this, the first digital version of PalNews. As this is our first try at this format, we would welcome any comments or complaints. While on the subject I would also like to thank Ludwig Döhne for his knowhow and assistance in converting this edition into electronic format.

Since the 4th issue of *PalNews* Volume 14 never reached publication, it is now more than a year since we last communicated through the newsletter - and it seems to have been quite a busy year. It also means that some news are slightly outdated, but as we don't want to miss a step it is included in any case.

This is of course the year in which the BPI turns a very respectable 60 with no signs of slowing down into retirement whatsoever. That means that only one year after co-hosting the 13th biennial PSSA meeting, the folks at the BPI are at it again with a big birthday bash planned for October. We provide more information on this in this issue.

It was also good to see our members making their mark, with the work of Mike Raath and colleagues on the *Massospondylus* eggs perhaps the most recent high profile case. However I want to make special mention and congratulate Anusya Chinsamy-Turan who recently won the South African, Woman of the Year Award. Well done Anusya! While on the subject of honouring our members we also included an article by Bruce Rubidge on John Nyuphuli, who was honoured by the PSSA at the 13th biennial meeting for his contributions to palaeontology.

Some housekeeping matters are given attention early in the issue with two proposals for amendments to the constitution of the PSSA. Please make sure that you carefully read these and provide us with your feedback

Lastly I want to thank everybody who contributed to this issue. Remember to let the articles and other contributions roll in for the end of the year. We look forward to hear from you.

Take care

Johann

AMENDMENTS TO THE CONSTITUTION

Attention all members! It has recently been proposed that two amendments be made to the constitution of the PSSA. They involve the sections for *Honorary Life Membership* and *Financial Matters*. This follows after several members have expressed the opinion that the current requirements for Honorary Life Membership are too strict. The amendments proposed to section 6.4 of the constitution (pertaining to the financial affairs of the society) are simply for practical reasons and aim to enable the treasurer to fulfill his/her functions in the most suitable way as dictated by circumstances.

As per the constitution you are now required to study, and vote on these amendments. If more than one third of paid up members vote against these amendments, they will not be accepted. If no answer is received, it will be deemed that the member is in support of the two proposed

amendments to the constitution. Deadline for voting is Friday, 25 November 2005. Votes should be E-mailed, mailed or faxed to Johann Neveling at:

E-mail: jneveling@geoscience.org.za

Fax: +27-12-841-1401

Mail: Central Regions Unit, Council for Geoscience,
Private Bag X112, Pretoria, South Africa.

Clearly indicate in your communication whether you
A - SUPPORT the proposed amendments to the constitution (Yes-vote)

OR

B - NOT SUPPORT the proposed amendments to the constitution. (No-vote)

In case you do not approve it would be appreciated (although not required) to inform us what part you are not in agreement with.

Proposed Amendments

SECTION 3.1.1 currently reads as follows:

3.1.1 HONORARY LIFE MEMBERSHIP -- This constitutes the highest honour which the Society can bestow, and is conferred for life. A candidate for Honorary Membership, who would normally be a prominent person who has made a distinguished contribution to palaeontology or a sister discipline, must be formally proposed by a Member in good standing and seconded by at least two other members in good standing. The nominations, with a full motivation in support, must be submitted to the

Hon. Secretary for consideration by the Executive Committee. If the Executive Committee supports the proposal, it will be put to the Members for approval either at a General Meeting of the Society or in a postal ballot. If no dissenting vote is cast against the nomination and providing the affirmative vote represents at least two thirds of the paid-up membership of the Society, the candidate will be declared by the President duly elected to Honorary Membership. If the nomination fails to attract two-thirds support from the Members, even though it

may not have drawn a single dissenting vote, it will fall away. Honorary members are not eligible for election to any office in the Society, but otherwise they enjoy all the rights and privileges of Ordinary Membership, including the right to vote. They will not be required to pay membership subscription fees.

It has been proposed that a vote of two-thirds of the membership alone be sufficient to bestow Honorary membership. Thus, following the proposed amendments, the section reads as follows:

3.1.1 HONORARY LIFE MEMBERSHIP -- This constitutes the highest honour which the Society can bestow, and is conferred for life. A candidate for Honorary Membership, who would normally be a prominent person who has made a distinguished contribution to palaeontology or a sister discipline, must be formally proposed by a Member in good standing and seconded by at least two other members in good standing. The nominations, with a full motivation in support, must be submitted to the Hon. Secretary for consideration by the Executive Committee. If the Executive Committee supports the proposal, it will be put to the Members for approval either at a General Meeting of the Society or in a postal ballot. Such a vote must be supported by two thirds of the paid-up membership of the Society, for the candidate to be declared by the President duly elected to Honorary Membership. If the nomination fails to attract two-thirds support from the Members, it will fall away. Honorary members are not eligible for election to any office in the Society, but otherwise they enjoy all the rights and privileges of Ordinary Membership, including the right to vote. They will not be required

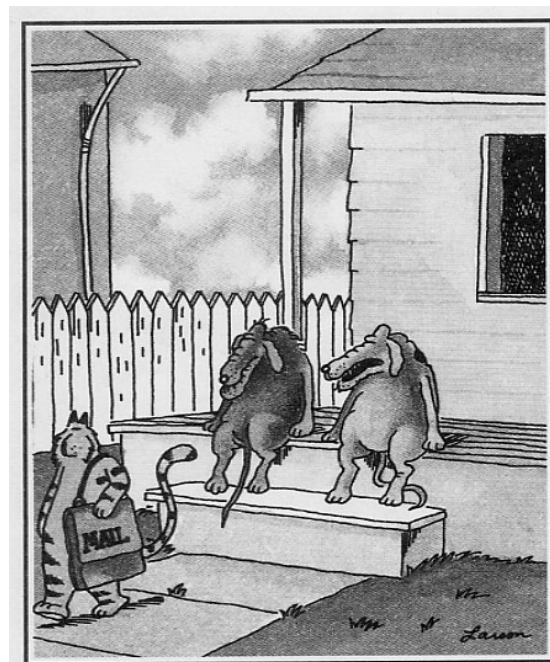
to pay membership subscription fees.

Section 6.4 (FINANCIAL AFFAIRS OF THE SOCIETY) currently reads as follows:

6.4 Each year, as soon as possible after closure of the financial year on March 31st, the Hon. Treasurer will submit the Society's books of account, bank statements and/or savings account statements and all supporting vouchers to a meeting of the Executive Committee. The Executive Committee will then appoint an independent auditor to audit the Society's accounts. Copies of the audited accounts and the auditor's report will be distributed to all Members for approval as soon as possible thereafter.

In the proposed amendment the section has been simplified and now reads as follows:

6.4 Each year, as soon as possible after closure of the financial year, the Hon. Treasurer will have the books of the Society audited and a report submitted to the Executive Committee.



"We're gettin' old, Jake."

CITATION FOR JOHN NYAPHULI ON BEING AWARDED HONORARY MEMBERSHIP OF THE PSSA FOR LIFE



John Nyaphuli, now in his 72nd year, has made a remarkable contribution to South African palaeontology in fieldwork and fossil preparation. He was born in 1933 on the farm Rohallion in the Wepener district. After a primary school education, where he passed grade seven, John moved to Bloemfontein to seek employment in the 1950s.

He worked at Tempe Military Base until 1973, when he was appointed as a fossil preparator in the Karoo Palaeontology Department at the National Museum. John has continued to serve that institution to this day and is in charge of the large group of fossil preparators.

His first experience in fossil preparation was on dinosaur material from the Elliot Formation which Dr Jacques van Heerden was researching for his PhD. In those early days the standard method of preparation was using a small hammer and steel nails. John demonstrated a remarkable flair for preparing fossils, and as technology improved he advanced to using vibro-tools fitted with gramophone needles.

In the early 1980s, the National Museum started working on very small fossils from the lowermost Beaufort Group, which were preserved in an extremely hard matrix such that not even the strongest vibro-tool could penetrate. In response to

this challenge, John experimented with the use of air-driven engravers, which proved to be far more effective. At the same time he was schooled in during the 1960s.

Once schooled in the basics of acid preparation, John experimented on his own to develop the best and most effective techniques to extract fossils from the Lower Beaufort. He has perfected both mechanical and acid preparation and, as Chief Technician in the Palaeontology Department at the National Museum, has trained the rest of the team of preparators at that museum in these skills. In addition, the BPI Palaeontology and Council for Geoscience have on several occasions benefited from John's skill and experience through his training of technicians at these institutions in fossil preparation.

John's greatest contribution to Karoo palaeontology, however, has been in fieldwork. His first field experience was on a trip to the Fouriesburg district with Jacques van Heerden, where they met up with James Kitching, Lukas Huma and Jim Hopson to collect in the Elliot Formation. He soon recognized the extraordinary ability of James Kitching to find fossil bones, and spent the rest of the excursion closely observing the elusive clues that helped Kitching make so many discoveries. Whilst in the employ of the National Museum, Bruce Rubidge initiated a programme to find tetrapod fossils in the Prince Albert district, in what were then considered to be Ecca rocks and John Nyaphuli was the person who found the most fossils. The collecting horizons expanded beyond this district and John found several new genera which have

painstaking processes of acid preparation, a method that Ione Rudner had previously proved effective in the preparation of the holotype of *Eodicynodon* subsequently proved to be some of the most primitive therapsids known. The discovery of a new and very basal therapsid fauna led to the recognition of a new biozone at the base of the Beaufort Group and the realization that many of the therapsid groups had their origins in southern Africa, not in Asia as previously thought. After Rubidge moved to the BPI, this project was expanded to the Ecca-Beaufort contact around the whole basin, and John Nyaphuli (with the kind approval of the directorate of the National Museum) continues to be included in these excursions because of his remarkable ability to find fossils in areas where previous generations of palaeontologists have not been able to locate them. This project has led to the discovery of at least eight new basal therapsid taxa in addition to many other specimens, most of which were discovered by John Nyaphuli and some of which bear his name. These include *Patranomodon* and *Anomocephalus* (the most primitive anomodonts), *Tapinocanius* (the most primitive tapinocephalid dinocephalian) and *Australosyodon* (one of the most primitive anteosaurid dinocephalians).

John Nyaphuli has accompanied most local and many overseas palaeontologists on collecting expeditions to the Karoo. He has built up a great depth of knowledge on the basinal distribution of different fossil taxa, including plants, and is able to identify them even in an unprepared state. He is a master at finding fossils in the field and has been responsible for not only adding large numbers of specimens to

the collections of the National Museum, but also for discovering a totally new fauna at the base of the Beaufort Group in the southern Karoo.

John has been awarded a long service merit award by the National Museum, and his services to that organization are of such high quality that he has now been employed on a contract basis for six years beyond the official mandatory retirement age.

John Nyaphuli is a cheerful and kind-hearted person whose generous spirit endears him to all. In his soft-spoken way he commands the respect of those who work with him and motivates them to greater achievement. I for one will always remember the occasion when we were trying to excavate a three metre-long dinocephalian skeleton from its notoriously hard lower Beaufort matrix.

The harsh Karoo sun was beating down, flies were buzzing around our sweating heads, and the fossil just would not move as we hammered away at it. I had just added another chisel to our pile of broken ones after finally managing to dislodge another very small and insignificant piece of rock, and was feeling very down hearted when John uttered "bietjie-bietjie maak baie" (*little by little you go a long way - loose translation, ed.*). These words still keep me motivated.

In recognition of his long record of outstanding service to palaeontological endeavour in South Africa and for his great contribution, the Palaeontological Society of Southern Africa awards to John Nyaphuli the highest honour our Society can bestow, Honorary Membership For Life.

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NEWSFLASH - WOMAN OF THE YEAR !!!

For those of you who have not heard, one of our members, Anusya Chinsamy-Turan was one of the finalists in the *South African Woman of the Year Award*. Not only did she clean up in the *Science and Technology Category*, but she also won the overall competition.

The Woman of the Year Award was launched as an initiative to mark National Women's Day and to pay tribute to South Africa's most exceptional and achieving women who have achieved success in their own respective fields and also made a tangible difference in communities and society as a whole.

Quite naturally the nominee's suitability as a role model is essential.

The judges recognized Anusya's outstanding contribution to scientific research, the roles she has layed within several science bodies and her contributions to stimulate interest in science among the general public. Not surprisingly therefore that they chose her as the well-deserved winner of this year's competition. For those of you that want to know more, visit the competition's website at www.sawoman.co.za/

NEWS FROM:

BPI PALAEOLOGY

As is usual, all undergraduate lecturing commitments of BPI staff come in the second half of the year. This has meant that since the PSSA Conference in July 2004 all BPI academic staff have been involved in lecturing.

On the botanical front in March **Marion Bamford** participated in a workshop at Rutgers University, New Jersey, USA. This workshop was on the fieldwork and research at Olduvai Gorge and Koobi Fora, after which she went to the Palaeoanthropology Conference in Montreal and presented her research on the fossil woods from Laetoli, Tanzania. In July she presented work on her Olduvai research at the Geoscience Africa Congress at Wits and then in October attended the International Congress on Wood Sciences at CIRAD, in Montpellier, France, presenting a paper on Eocene woods from the Blaubbok Gravels in Namibia. Apart from the conferences Marion has been involved in field work looking at modern wetlands, particularly Seekoivlei in the eastern Free State and the Okavango Delta in Botswana. Marion, together with Rose Adendorff, Johann Neveling and the visitors from the Smithsonian Institute (Hallie Sims and Conrad Labandeira) and Colby College (Bob Gastaldo and Sam Grey), collected fossil plants and insect damaged plants from above the Triassic boundary at Carlton

Heights, Wapadsberg and Bethulie. In spite of rain and snow they collected a lot of material which they are slowly going through. Marion then spent three weeks at Laetoli making a comprehensive collection of the modern flora with Efrim-Fred Njau and Godson Leliyo (from the Herbarium in Arusha, Tanzania) and Peter Andrews (Natural History Museum, London) supported by NSF and PAST grants. The modern species composition and vegetation structure data will be used in interpreting the fossil woods and palaeoenvironment from the area. The last four months have been taken up with a full teaching load. Rosie Adendorff is currently at the BPI doing her final modifications to her PhD thesis on the fruiting bodies of *Glossopteris*.

The BPI botanists have been on the move and Rose Adendorff and Steve Prevec got married in Grahamstown, their new home, on 2 October 2004. A number of members of the BPI went down for the wedding which was in the Rhodes Chapel. Ray and Alain Renaut have settled in Cape Town and are slowly adjusting to their new way of life.

On the vertebrate palaeontology front **Fernando Abdala** is busy with a number of different projects involving cynodonts. He is working with Johann Neveling and Johann Welman on the description of a new trirachodontid from the Subzone A of the *Cynognathus* Assemblage Zone. This study will also

include a phylogeny of gomphodont cynodonts from Gondwana. He is also collaborating with Jennifer Botha and Roger Smith on the description of a cynodont from the *Tropidostoma* Assemblage Zone, and thus the oldest cynodont in the world. Fernando is involved with Ross Damiani, Adam Yates and Johann Neveling in the study of a cynodont lower jaw from the lower Elliot Formation. This represents the second (or third if we consider the unpublished tritheledontid under description by Chris Sidor and John Hancox) cynodont discovered in this fauna. The number of therapsids is thus steadily increasing for the lower Elliot. On the South American front, he has just finished a collaborative effort with Juan Cisneros and Maria Malabarba (*Pontificia Universidade Catolica do Rio Grande do Sul*, Brazil) involving the description of new pareiasaurian remains discovered in the Brazilian Late Permian (Posto Queimado fauna). He and Anusuya Chinsamy are describing the palaeohistology of bones of four traversodontid cynodonts from the Middle and Upper Triassic of South America (Argentina and Brazil).

Adam Yates has been kept busy sorting out the taxonomy of sauropodomorph dinosaurs from the lower Elliot Formation, and has several papers up his sleeve. He was invited by Kevin Padian to attend a week long Triassic workshop held at the University of California Museum of Palaeontology at Berkeley in November, but had to rush back to lead a National Geographic sponsored field trip to the Elliot Formation, this was in the company of Johann Neveling, Lucy Perreira, Juan Cisneros, Fernando Abdala, Germaire de Villiers John Hancox, and Matt Bonnan (University of Western Illinois). Most of

the time in the field was spent excavating a skeleton of a new type of sauropod dinosaur in the Rozendal district. Working between daily rain storms some really nice limb bones were uncovered but it will take several field seasons to remove the specimen completely. This was followed by a short excursion to the Ladybrand district where some large sauropod remains were collected from the *Tritylodon* Acme Zone.

Sadly we bid farewell to our other Australian, **Ross Damiani**, in September last year. He has been employed at the BPI on numerous postdoctoral fellowships since 1999 and has produced close on 30 papers in his time here. The last project that he was involved in was a re-look at the taxonomy of rhinesuchid amphibians which will hopefully be finalized soon.

Immediately prior to the PSSA conference **Bruce Rubidge**, **Chris Sidor** and **Sean Modesto** spent a few days finalizing the description of a skull of a new burnetiid from the *Tapinocephalus* Assemblage Zone near Jansenville. Following the PSSA conference Bruce Rubidge, John Hancox, Billy de Klerk, Rob Gess and Richard Mason spent a few days along the Eccca-Beaufort contact in the Estcourt district mapping and casting some exciting trackways which appear to have been made by temnospondyl amphibians. Bruce and Ken Angielczyk have been finalizing a manuscript describing a new species of the dicynodont *Robertia* which is of significance as a biostratigraphic indicator in the *Tap* Zone.

PhD student **Merrill Nicolas** continues to make

progress with her project of establishing a GIS database of all fossil material from the Beaufort Group which is housed in South Africa collections. The curators of all the Karoo fossil collections have been most helpful in making their collection data available to her and the final product will be a most worthwhile research asset to palaeontologists interested in the stratigraphic and biogeographic distribution of Permian and Triassic tetrapods. For his MSc **Richard Mason** has undertaken several field trips to measure stratigraphic sections and collect fossils along the Ecca-Beaufort contact north of Grahamstown in the Eastern Cape. This area has not delivered tetrapod fossils in the past but now several worthwhile zone defining fossils have been discovered, and it will be useful to be able to determine their exact stratigraphic position for the first time.

Ashleigh Jeannot successfully completed her MSc on the skull of *Lydekkerina* in the first half of this year under the supervision of Ross Damiani and Bruce Rubidge, and has been modifying the script for publication. Having done all this she has moved on to the next stage of life and is due to have a baby in the new year.

Juan Cisneros has been busily preparing up and comparing numerous specimens of *Procolophon* and has also loaned the holotypes and other early described reference material from the Natural History Museum in London. He has found a pattern of development of palatal dentition that may explain differences at the species level. He, together with Bruce Rubidge and Richard Mason is currently describing a milleretiid from the lower Beaufort near Grahamstown which was collected recently by

Charlton Dube.

Romala Govender is putting on the finishing touches to her thesis on the postcranial skeleton of *Kannemeyeria* which she is doing under the combined supervision of John Hancox and Adam Yates. Cecilio Vasconcelos continues with his MSc on *Massospondylus* and hopes to submit early in the new year.

Anthea Bristowe was awarded her MSc *cum laude* for her description of the skull of a juvenile *Syntarsus* from Zimbabwe which was collected many years ago by **Mike Raath**. She and Mike Raath have two papers in press in the next volume of *Palaeontologia africana* which will be printed early in 2005. Anthea has decided to broaden her palaeontological base and is now working on palynology for her PhD, and at the same time is running the aerobiology programme of the BPI which she has taken over from Ray Renault.

The palaeoanthropologists have also been very active, **Lee Berger** has been on sabbatical for the past six months and has written two books in the process. **Lucinda Backwell** was awarded her PhD degree in April 2004. Since then much of her time has been devoted to editing the proceedings of the conference *From Tools to Symbols: From Early Hominids to Modern Humans*, held in honour of Professor Phillip Tobias last year. The book, co-edited by Francesco d'Errico, will be published by Wits University Press and launched early next year. Their introductory paper '*Searching for common ground in Palaeoanthropology, Archaeology and Genetics*' explores the contribution of the various

disciplines to the question of what makes us human. Lucinda and Francesco continue their fruitful collaboration, and have this year had their Olduvai Gorge bone tool manuscript accepted by *Palaeontologia Africana*. They have contributed 2 book chapters, the first is on Olduvai, and the second the Swartkrans early hominid bone tools, to appear in Bob Brain's second edition of the Swartkrans volume. Lucinda has also been collaborating with the Chemistry Department at Wits on the removal of manganese dioxide coatings from fossils, and has co-authored a paper currently under review. A second paper under review is on the new artefacts from the Cooper's Cave site in the Cradle of Humankind. The results of her research have been presented at 2 conferences this year. Besides her research, she has attended teaching and supervision workshops, and been very busy setting up courses and lecturing on primate and human evolution. **Robyn Pickering** and **Bernard Zipfel** have respectively both submitted their MSc

and PhD theses.

Mike Raath has the time consuming task of curating and managing the fossil collections at both the BPI and the Department of Anatomical Sciences at the Medical School. Just recently he, with the assistance of the BPI technicians, has replaced the old wooden shelving in the BPI stores with steel shelving. This has been a huge undertaking as all the fossils have had to be unpacked, shelves broken down, and then new steel shelves erected.

2004 has been an active year for the BPI, and 2005 promises to be even more productive on the research front. Marion Bamford will be taking a six month sabbatical at the beginning of the year, and Lee Berger will be finishing off his twelve month sabbatical by mid year and returning just in time to teach in the second semester.

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ROGER SMITH @ IZIKO SA MUSEUM

Permo-Triassic boundary project

This year Jennifer Botha and I continued working on the Bethulie and Lootsberg Pass localities in the Karoo collecting more data on the timing of the disappearance of various taxa at the end of the Permian as well as the sequence of appearances of new taxa in the earliest Triassic. A total of 53 in-situ fossils were logged and collected and are in prep at the moment. A paper on the survivorship of *Lystrosaurus* species across the boundary has been submitted to *Palaevol* and was presented by

Jennifer at *Geoscience Africa* at Wits and the SVP annual meeting held in Denver.

West Coast Fossil Park

In June we excavated an additional 20 square metres of the Early Pliocene Sivathere bonebed at the Langebaanweg. The new site is on the downstream side of a phosphate rock outcrop that is thought to have been an obstruction to flow in an ancient river estuary. For the first time we uncovered more complete skull elements and can now confidently reconstruct the adult (?male) sivathere with a massive 1.6 metre long pneumatized

skull.

Madagascar dinosaurs

In July/August I spent 3 weeks in north western Madagascar with a team of palaeontologists from US led by Matt Corrano of Smithsonian Institute. His mission was to find Early Cretaceous terrestrial fauna there to see if they contained cosmopolitan or endemic taxa like those previous found in the Late Cretaceous of the Majunga Basin.

The team spent 2 weeks prospecting in the tropical rainforests of the Majunga Basin to no avail. Then quite by chance we found an isolated outcrop that yielded plentiful fragmented bone. We collected 280 specimens over the following week including 2 types of theropod, a sauropod, turtle, croc, amphibian and wood remains. My job was to log the sedimentary sequences at each locality and work out their depositional environments. Most of the bones came from a pebbly lag conglomerate at the base of a low sinuosity fluvial channel sandstone. Half the collection has been successfully shipped to the Smithsonian for further study.

"Show and Tell" activities

This year I was involved in leading 3 weeklong educational field excursions to the Karoo for Friends of the Museum, Cape Natural History Society and the Wilmslow Guild from UK. All were well attended with a total of 80 participants. I also presented seminars and lectures at Summer School, Winter School, Heritage week and Manchester University as well as a weeklong filmshoot for NHK, a Japanese TV station, who have produced a documentary called *Miracle Planet II*. I attended

the *Geoscience Africa* conference at Wits and the SVP annual meeting in Denver and gave talks on the "*Taphonomy of the Sivathere bonebed at Langebaanweg*".

Display activities

This year the "Fossil Stories" display was augmented with a working laboratory in which two newly trained preparators, Zaituna Erasmus and Tobeka Malambe can be seen working away on the

PT boundary fossils. Another eye-catching attraction is the "Scavengers" diorama- a new installation of two full sized *Gorgonops* eviscerating a dead *Oudenodon*. This is a walk round diorama re-enactment of the sequence of events that led to the preservation of an *Oudenodon* (nicknamed Mamafura) skeleton on display in a nearby case.

A second diorama dubbed "*Grazers, Grubbers and Browsers*" features the Permian dicynodonts and is due to be finished by March next year.

"*African dinosaurs*" is a new display planned for 2005 featuring a skeletal mount of a juvenile sauropod (*Jobaria*) along with skulls of *Carcharodontosaurus* and the "supercroc" *Sarchosuchus* from Niger as well as fleshed-up models of most of our local dinosaurs.

Publications

SIDOR, C.A. and SMITH, R.M.H. 2004 A new galesaurid (Therapsida: Cynodontia) from the Lower Triassic of SA. *Palaeontology* 47, 535-556.

Papers in review:

* Smith RMH, Rubidge, B.S. and Sidor,

C.A.(resubmitted) A new burnetiid (Therapsida: Biarmasuchia) from the upper Permian of South Africa and its biogeographic implications. *Journal of Vertebrate Palaeontology*.

* Sidor, CA, O'Keefe, R. Damiani, R., Steyer, S., Smith, RMH, Larsson, HCE, Sereno, PC, Oumarou, I, Abdoulaye, M. (resubmitted) Permian terapsids from the Sahara show climate controlled endemism in Pangaea. *Nature*

* Botha, J and Smith, R.M.H. (submitted) *Lystrosaurus* species composition across the Permian/Triassic boundary of South Africa. PALAIOS.

* Botha, J and Smith RMH (submitted) The recovery of terrestrial vertebrate diversity in South African Karoo Basin after the end-Permian extinction. *Comptes Rendus*

* Trueb, L, Ross, C and Smith, RMH (submitted) A new pipoid anuran from the Late Cretaceous of South Africa. *Journal of Vertebrate Palaeontology*

* Damiani, R, Steyer, S., Sidor,CA, Smith, RMH, Larsson, HCE, Gado, B, Maga, A, Ide,O (submitted) The vertebrate fauna of the Upper Permian of Niger.III. A new primitive temnospondyl. *Journal of Vertebrate Palaeontology*.

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PATRICK BENDER

HOBART, TASMANIA

Just a short update concerning my fossil present-day situation here in Hobart, Tasmania. I've had a busy time of it since coming to Tasmania almost a year ago. Although I have been working at the Tasmanian Museum and Art Gallery for most of that time, the work has been largely to do with movement of museum collections to new storage premises on Hobart's eastern shore. I've handled some very interesting objects including, a canned food tin from the 1850 Ross expedition sent to rescue the doomed Franklin Arctic expedition, the members of which had all died from poisoning due to the lead-based canned food!

But the time has now come...and I have started putting together some fossil educational materials

for the Tasmanian Museum and Art Gallery, in collaboration with Noel Kemp the geology curator at the Museum. The first publication will be in the form of a booklet on the Triassic vertebrates of Tasmania and their Gondwana connection. In a way proving a continuation of the South African Karoo Basin work that John Hancox and I completed a few months back, bearing in mind that early Triassic fish fossils of southeastern Tasmania are comparable to ichthyofaunal elements from the early Triassic Upper Beaufort Group in South Africa (for more details see the Bender and Hancox 2003, Council for Geoscience Bulletin 136, in which we conclude by indicating the correlative potential of South African and other gondwanan early Triassic vertebrate elements). Tasmania as yielded a number of interesting and important early Triassic vertebrates, including five amphibian and four fish species; but there should be more to come, because local researchers that I've spoken to

here are of the opinion that the Tasmanian early Triassic fossil deposits are in need of a new deeper look, including microvertebrate elements which have yielding such exciting correlative potential in the upper Beaufort Group of South Africa. Maybe this new booklet project can serve as a catalyst to new

gondwanan correlationstill next time.

Best wishes and take care everyone

Patrick

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JENNIFER BOTHA
NATIONAL MUSEUM
BLOEMFONTEIN, SA

"Roger Smith and I spent much of 2004 updating the Permo-Triassic boundary database. Our three week field trip in March last year yielded some interesting results about the Triassic vertebrate recovery and we submitted an updated account of it towards the end of 2004. June last year included a few weeks" work on the Langebaanweg excavation and a description of a new fossil pangolin genus and of course July included the Geoscience Congress where it was great to see everybody again. Last October, Roger and I completed another field trip, this time focusing on Late Permian strata, and in November I presented updated results on the *Lystrosaurus* species composition across the P-T boundary at the 64th *Society of Vertebrate Paleontology* conference, held in Denver, Colorado. In January, 2005, I moved up to Bloemfontein to

join the National Museum as Head of Karoo Palaeontology. It's taken a while to get used to a new place and a new system, but I'm back on track and currently working with Ken Angielczyk on the taxonomic status of the dicynodont *Tropidostoma*. Ken will be presenting our results at the next SVP meeting, whereas I will be attending Gondwana 12 in Mendoza, Argentina in November to present results from a field trip that Roger and I conducted in April this year regarding the *Lystrosaurus* Assemblage Zone. Fernando Abdala, Roger Smith and myself have also recently finished working on an interesting little cynodont skull I found in 2004. I've spent most of July on a field trip to Middelburg with Dr Sean Modesto and his PhD student, Laura Staila, which has yielded some interesting fossils from the lower portion of the *Lystrosaurus* Assemblage Zone. Other plans include attending the 5th International Bone Diagenesis Meeting, which is being held in Cape Town later this year."

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**FRANCIS THACKERAY,
TRANSVAAL MUSEUM**

Francis is collaborating with Professor Gen Suwa (University of Tokyo), in a project aimed at quantifying variability in the thickness of tooth enamel of Plio-Pleistocene hominids. High resolution CT images have been obtained from unworn molars

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**COUNCIL FOR GEOSCIENCE,
PRETORIA**

During most of 2004 I continued with several research projects that was initiated in previous years. Most exciting of these was the continuation of the collaborative palaeo-botanical and ecological work done in the Late Permian and Triassic of the Karoo. In June I accompanied **Marion Bamford** (BPI), **Rose Adendorff** (BPI & Albany Museum), **Hallie Sims**, **Conrad Labandeira** (Smithsonian), **Bob Gastaldo** and his student **Sam Grey** (Colby College) on a fieldtrip to the southern Free State and Eastern Cape. On this trip we visited Late Permian and Early to Mid Triassic localities identified during an earlier scouting trip (reported on in the previous issue of PalNews). Although the plant fossil in these exposures are small and generally not that well preserved, we collected several good specimens and in the end had to become more selective in order to keep the tonnage down (something that quickly accumulates). This trip was followed up by a shorter trip to the Late Permian we studied localities in KwaZulu-Natal in order to finish up our work here

of hominids from Sterkfontein, Swartkrans and Kromdraai.

Francis travelled to Tokyo in October 2004. In addition to working on the palaeontological project, he delivered a lecture at the university, drank saki on the floor, experienced an earthquake, climbed the slopes of Mt Fuji and got thoroughly soaked in a typhoon, one of several that hit Japan recently.

(Hallie and Rose especially, were extremely busy here).

Back to more conventional work (well at least for me) I also spent two weeks in September recording geological data on the Burgersdorp Formation. Following all the research on this formation during the past decade, **John Hancox** and I are currently working on the stratigraphy and geology of the Burgersdorp. As this required additional stratigraphic information, I spent the above-mentioned time in September running around in the Rouxville and Tarkastad districts, measuring stratigraphic sections (a painful, but rewarding exercise).

This year also included a bit of a shift in my research scenery, with me joining up with **Adam Yates** and his colleagues in their work on the fauna (but especially dinosaur fauna) of the Elliot Formation. In May I joined Adam and **Cecil Vasconcelos** in investigating and partly excavating a known fossil locality in the Senekal district. More work will follow at this locality later.

This was followed by a trip directly after the PSSA 2004, with **Adam, Ross Damiani, Fernando Abdala, Juan Cisneros** and **Sean Modesto**. After some Early Triassic work at Middelburg, we worked on the Edelweiss locality in the Lady Brand district, where Ross and **Lucy Allot** have previously discovered a cynodont in these Late Triassic exposures. In addition we also collected more dinosaur material and tried to put them in their geological context.

However, I have not turned my back on synapsid work, and **Fernando Abdala** and I continued with our research on the trirachodontid material from South Africa (including the new material from

Subzone A). This worked progressed quite well and the manuscript is now very close to submission.

Meanwhile **Linde Karny** kept plugging away on the Karoo fossil collection and overhaul of our electronic fossil database. The improvement brought by her steady efforts are noticeable and the results are immensely satisfying. It is however a gargantuan undertaking that still requires a lot of work and we hope to have her contract renewed so that she can continue with this very important task. All-in-all 2004 was good year at the Council...

Johann Neveling

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HEIDI FOURIE, TRANSVAAL MUSEUM

The Transvaal Museum (Vertebrate Palaeontology Section) and the South African Society for Amateur Palaeontologists had a very successful year of mechanical preparation. What started as a Saturday morning venture with 3 people once a month, is now a full-day of preparation with 8 eager amateurs. *Lystrosaurus* was chosen as the material is plentiful, but there was no need for worry as these amateurs soon proved themselves to be very skilful and devoted. They have unearthed two

partial skeletons and 4 beautiful skulls. The preparation will continue in to 2005 as the cost seems to be minimal and is presently carried by the Vertebrate Department of the Transvaal Museum. This is a most rewarding experience and the amateurs are anything but "amateurs". I have met pleasant, interested and enthusiastic people from all walks of life. I would like to challenge the other Institutions to start similar ventures.

My own research is progressing well and 2005 will see my Ph.D thesis in print. I will continue to concentrate on the postcranial morphology of the Therocephalia.

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NEXT DEADLINE FOR CONTRIBUTIONS - FRIDAY, 2ND of DECEMBER 2005