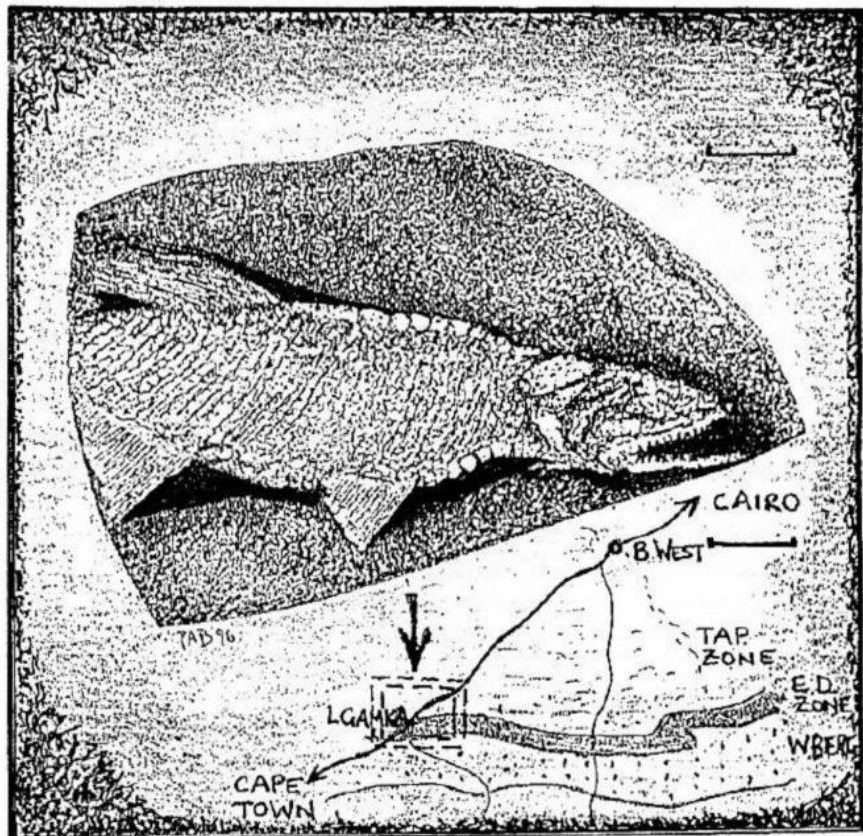


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PAL NEWS NUUS

Biannual newsletter of the Palaeontological Society of Southern Africa
Halfjaarlikse Nuusbrief van die Paleontologiese Vereniging van Suider Afrika
Vol/Band 11(1) Dec. 1996



INTERESTING SOUTHERN AFRICAN FOSSILS:
Kitchingichthys karoensis a new Upper Permian palaeoniscoid
fish (Lower Beaufort Group).

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Front Cover: Holotype of *Kitchingichthys karoensis*, enigmatic new Upper Permian palaeoniscoid fish. To highlight James Kitching's invaluable contribution to palaeontology on his retirement from the BPI Palaeontology (*Zhenta Sychevskaya proposed the generic name as a tribute to James Kitching (1941)*).

FROM THE EDITOR

Good day PALS !

Well the editorship has sailed on again, and I have been carried aboard! Many thanks to Billy de Klerk for his superb work as previous editor, and for helping me get to grips with the new issue. For those of you who don't know, I am curator of the Museum of the Council for Geoscience (South African Geological Survey) and based in the Transvaal Museum in the new hip-centre of Gauteng: Pretoria! I will be assisted by Sally Reynolds, a Wits Archaeology honours student who has very kindly offered to help put PALNEWS together.

The focus of the second half of 96 has undoubtedly been the 9th biennial conference of the PSSA (23-25 September) superbly situated in Stellenbosch and wonderfully hosted by Juri van der Heever. This year we had the pleasure of more overseas participants than ever before, indicative of the new spirit driving South Africa: John Long, Wolfgang Maier, Michael Maisch, Martin Pickford, Rianer Schoch, Brigitte Senut, Michael Shiskin and Zhenia Sytchevskaya. The conference was officially opened by the rector of Stellenbosch University Prof. Van Wyk, followed by the presidential address which was concluded by the establishment of the Gondwana-songlines officially performed by el president Francis Thackery with his spirited rendition of the Gondwana anthem! (long live el president Thackeray!). The paper sessions were headed by a chunky fossil fishes section, before moving into a few mixed topics, the day ending with a report of unusual hominid footprints from the Langebaan lagoon by Dave Roberts. That evening we collected for the ice breaker and its tasty seafood snacks; such was the spirit created in the Blue Room that various delegates were inspired to set a trend that would be eagerly pursued for the rest of the conference, namely investigating the (very late) night life in Stellenbosch.

Day two moved firmly and impressively through the Karoo mammal-like reptiles and related topics. We were then treated to a snoek (also known as the snakemackerel) fish braai at the famous (or infamous depending on your outlook!) Coertzenberg sports complex, second home to South African rugby legend, the late Danie Craven. The formal conference proceedings

were concluded by a session on Cenozoic mammals and celebrated in fine style at the conference-end dinner at Mary se Plaas Kombuis; best student paper award went to Elizabeth Latimer (rhinesuchoid amphibians) and the best poster to Billy de Klerk et.al, (new vertebrate finds from the Kirkwood Fm.). The Australian contingent (John and Barry) effectively rounded the evening off with a lively inpromptu dance rendition of waltzing matilda!

(Good on yer mates!). A two day field trip superbly put together by John Almond took us into the mountainous SW Cape where we were conducted from the Silurian right up into the Quarternary, always accompanied by interesting fossils! A particular fieldtrip highlight for me was the chance to see the very inaccessible Elandsfontein Pleistocene mammals, superbly preserved and amazingly scattered over the dune scape, definitely rugged-4x4-land this. The thin night air and the lateness of the hour sent those delegates who were left scurrying to make contact with their post-conference lives. Next conference should be in Windhoek, Namibia in 1998.

One issue that needs to be addressed is the nomination of the Executive Committee, it seems that the call for nominations at the 9th BGM didn't reach everyone timeously. PALNEWS will carry a call for nominations (and a provisional agenda and a call for agenda items) in its December 97 and June 98 issues, but I suggest that the call for nominations should also be made early on at the 98 conference.

This segment of the year also saw the retirement of Prof James Kitching from the BPI Palaeontology. All the best Prof and thanks for all the help and inspiration. I'm sure I speak on behalf of everyone when I wish Prof and Mrs Kitching everything of the best for their future in Graaff-Reinet, the heart of the Karoo and its world famous mammal-like reptiles.

Events in the coming year: The National Science Festival in Grahamstown, April 1997 (contact: Billy de Klerk), 50th anniversary of the discovery of Mrs Ples (contact: Francis Thackeray).

All the best
Patrick

PSSA SUBSCRIPTIONS ARE DUE!!!

Would members please ensure that their annual membership fees are paid to the treasurer before April 1997 (Members R40/year; Students R20/year). Cheques to be made out to the PSSA. Send your payment to:

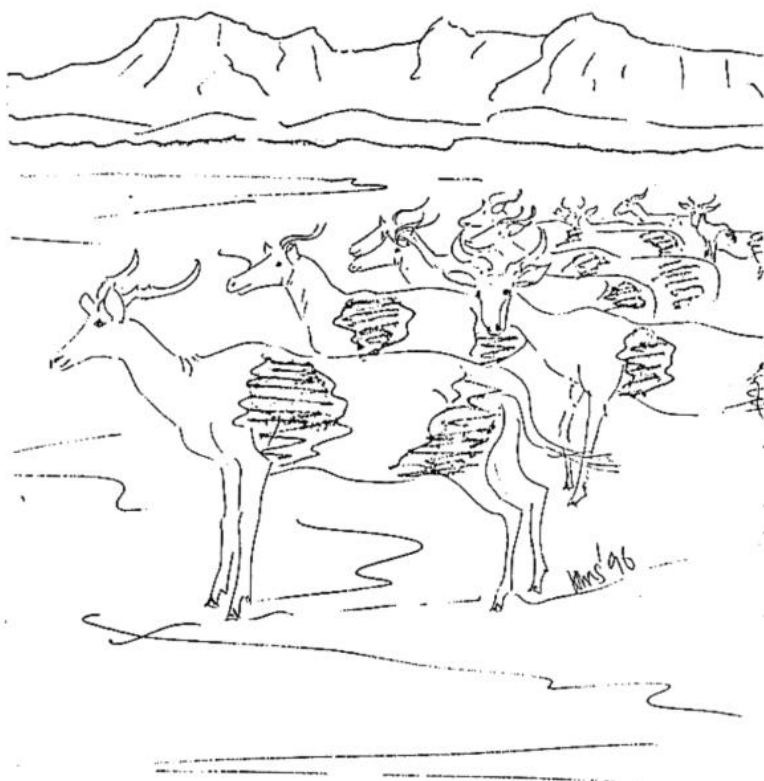
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If you have any queries about your account please contact Pippa - *Thanks.*



Primitive mail fraud

On a floodplain near Bitter Goudini
There lived a magician, Houdini.
He said there had better be
A herd of old tssessebe!
And hey presto, they came *in bikini*.



Limerick composed by Francis Thackeray during the PSSA post-conference excursion led by John Almond; accompanying sketch of tssessebe in bikinis by Heidi Anderson.

THE 9TH BIENNIAL CONFERENCE OF THE PSSA:

STELLENBOSCH 23-25 SEPTEMBER 1996

- A. PRESIDENTIAL ADDRESS
- B. MINUTES OF THE 9TH BGM OF THE PSSA

- A. FRANCIS THACKERAY:
PRESIDENTIAL ADDRESS: " I HAVE A DREAM"

Professor van Wyk, Mr Chairman, ladies and gentlemen. It is a great pleasure to deliver this Presidential Address at the Ninth PSSA conference in Stellenbosch. Stellenbosch can indeed be described as "the most beautiful land in South Africa", to quote Professor van Wyk, Rector of the University where we are now assembled. However, it can also be described as *die pragtigste dorp in Gondwana*. Unfortunately, Stellenbosch can't be called the Capital of Gondwana - that honour was bestowed on Graaff-Reinet on the occasion of a PSSA conference some years ago, when we ceremoniously re-united parts of Gondwana, including sediments from Australia, Antarctica, India, South America and the Karoo. The Gondwana sediments were placed in a bottle which has become the Staff of Office of the President of the PSSA. I have it here before me, with sediments collected by James Kitching and many other Members of the PSSA.

These sediments, representing a united Gondwana, were bottled together at a time when Dr Danie Craven, President of the South African Rugby Union, was trying to get rugby teams together to form a Gondwana Rugby Union. I had the good opportunity to meet him on the sidelines during a rugby practice at Coetzenburg, and I mentioned to him that the Palaeontological Society of Southern Africa had ceremoniously reunited parts of Gondwana, in a bottle. He smiled, understood the significance of the re-unification of such sediments, and said "*Mooi so!*"

Stellenbosch is almost synonymous with the name of Dr Danie Craven. But Stellenbosch is also associated with the names of several palaeontologists, including Dr Robert Broom (*die Groot Oom Broom*), Dr Boonstra, Dr A. Brink, Dr Bruce Rubidge, Dr Johan Welman, and of course Dr Juri van den Heever who has organised this Conference and to whom we extend our deep gratitude.

The programme of events for this conference, including topics that relate

to many aspects of Gondwanan palaeontology, is exciting. It reflects the fact that our Society is actively pursuing hot topics in various fields of palaeontological research, in South Africa and beyond the confines of South Africa. We welcome colleagues from Australia, England, Germany, Russia and the United States.

I have a Dream

In this Presidential Address, I want to tell you about a dream. In fact, it's a big dream, one that doesn't happen just overnight. It's a dream that could take 20 years to fulfil. It effectively began two years ago at the BGM of the PSSA conference held in Grahamstown in 1994, a highly successful and enjoyable conference organised by Dr Billy de Klerk and his colleagues. When I took on the Presidency of the PSSA in 1994, I said that I hoped that I could facilitate a process that would promote an awareness of the richness of South Africa's palaeontological heritage. In particular, I had a dream: to provide one cast of Mrs Ples to every school in the country by the year 2014. In 1994, I saw that (and the promotion of an awareness of many other fossils, in addition to Mrs Ples), as a 20 year objective.

The dream entitled "ONE CAST OF MRS PLES PER SCHOOL IN THE COUNTRY" carries with it the following ideas:

- CASTS INSTIL INTEREST
- CASTS INSTIL A SPIRIT OF ENQUIRY ("WHAT IS THAT?"). (I have often seen this when people are shown a cast of Mrs Ples for the first time).
- INTEREST CREATES DEMAND FOR MORE CASTS
- DEMAND CREATES JOBS
- CASTING OF FOSSILS CAN BE PROFITABLE
 - RAISING MONEY FOR JOBS
 - CREATING JOBS TO MAKE MORE CASTS (RDP related!)
 - MORE CASTS MAKE MONEY FOR MUSEUMS
 - MORE MONEY FOR MORE PALAEONTOLOGISTS
 - MORE PALAEONTOLOGISTS FIND MORE FOSSILS
 - MORE FOSSILS REQUIRE MORE CASTS
 - MORE CASTS RAISE MONEY FOR MORE SUPPORT FOR RESEARCH AND EDUCATIONAL PROJECTS

At the present time, I see the dream in the process of being realised, with the help of many people. In particular, I would like to thank Reinette Mathabathe and Ira Greiff who have made many casts of Mrs Ples within recent months for purposes of research and education; a sponsor, Hortor's Products, for funds which helped with a casting programme which helped with costs related to the manufacture of casts of Mrs Ples and other fossils, casts that were used for educational purposes in Gauteng. I would also like to thank and commend all members of the PSSA who contributed to efforts to promote an awareness of South Africa's heritage among the general public. These include Dr Bruce Rubidge and his colleagues, especially Marion Duncan and Joseph Fink of Josemar, who have enthusiastically promoted palaeontology in many ways, especially among school children, with the use of casts and educational packages. I thank Dr Roger Smith, Pippa Haarhof, Anusuya Chinsamy-Turan of the S.A. Museum; Dr Johan Welman and his colleagues at the National Museum; Dr Ron Clarke, Dr Kathy Kuman, Dr Lee Berger, Amanda Esterhuizen and Janette Smith of Wits University; Dr Eddie van Dijk who has stimulated many with his interests in fossils, particularly insects; Dr Francois Durand, Ludwig Dohne and Colin Macrae, associated with the Amateur Palaeontological Society of South Africa; and many others for their efforts to promote an awareness of our palaeontological heritage.

^{Sibusiso} I thank the support in principle from the Minister of Education, Dr Sibusiso Bengu, and Dr Richard Chernis who wrote on behalf of the Department of Arts, Culture, Science and Technology. Both Dr Bengu and Dr Chernis encouraged the PSSA to promote an awareness of South Africa's rich palaeontological heritage.

In addition, Dr Roger Jardine (Director-General of the Department of Arts, Culture Science, and Technology) welcomed possibilities of using casts of fossils to promote an awareness of our fossil heritage. I had the privilege to show him the original fossil of Mrs Ples at the Transvaal Museum, and he enthusiastically welcomed the idea of having one cast of Mrs Ples per school in the country: the dream to which I refer in the title of my Presidential Address to the PSSA today.

In April this year I was given an opportunity with Lelong Immelmann to have an article on Mrs Ples and other hominid fossils published in the

April 23 1996 issue of the Sowetan newspaper. The Sowetan is widely distributed, and the article was read by many South Africans, including children. I was surprised and humbled by many responses. Here are some of the comments and appeals for information which I received from people across the country:

1. Dear Sir, I am interested in evolution. I read a little in the *Sowetan*. Could you please send me more information. I am a third year student at the University of the North. I went through the University library in search of literature on evolution, but all in vain.
2. Dear Dr F. Thackeray, I have read your article in the *Sowetan* newspaper. Do you want to tell the South African nation that God is an ape? Were Adam and Eve apes, and was Noah and his family apes? The way you are giving your story you seem to be very sure. But I know you were not there. I am saying this because you said that the so-called hominids were eating plants and a little meat, and were also able to use tools and control fire. Are you sure of this, or are you simply wanting to play with our minds? Last year it was Prof. Phillip Tobias of Wits University. This year Dr F. Thackeray of the Transvaal Museum. Next year another (I know). I want to know more from you, Dr Thackeray.
3. Dear Sir, Evolution - it is very possible but difficult since it happened before history was recorded. There is no oral tradition or written records. So I need to visit the Museum. I have heard of fossils.
4. Dear Dr F. Thackeray, I would like to know about the history of people in Africa, from *Australopithecus* to *Homo*. Now can you post me more information. I'll thank you. Thank you.
5. Dear Dr Thackeray, In the Sowetan newspaper of 23 April 1996, I read about *Australopithecus africanus*. Can you give me the human's name that was living at that time? If there was no human being at that time, who wrote the hominid's history? Secondly, in the Transvaal Museum I can learn about hominids. Please send me more information.
6. Dear Sir, I would like to get more information about African hominids. I look forward to a right answer.

I responded to these and other letters by providing information that supplemented what had been published in an issue of the *Sowetan* on April 23,

1996. Clearly, there is a need to respond to such appeals for information, and there is a need to incorporate palaeontology within new school curricula.

When talking to the general public, especially school children, I have been delighted by responses which reflect a deep interest in South Africa's fossils. Very often, it has been with the help of casts of Mrs Ples that children are stimulated to ask questions that are as pertinent today as they were when Robert Broom found the original Mrs Ples in April 1947. Next year, especially in April 1997, when we celebrate the 50th anniversary of the discovery of Mrs Ples, we shall have wonderful opportunities to promote an awareness of South Africa's heritage, with special reference to Mrs Ples, believed by palaeoanthropologists to belong to the genus from which all humans are descended.

Opportunities exist to promote heritage awareness through travelling displays, including those that feature South African fossils (casts and/or originals) that might travel locally and to museums overseas, at the same bringing in income for museums, universities and the PSSA to support palaeontological research and educational projects.

As a South African palaeontologist, I am excited by the potential that this country has to offer for future research, and future generations of palaeontologists who can be stimulated not only by the fossils that have been found in this country, but also by particular palaeontologists of whom South Africans can be proud. These include Dr Bob Brain, who has turned is attention from hominids and human ancestors, to early metazoans, early multi-celled organisms that might include our very distant ancestors, about 550 million years old. To Bob I dedicate the following verse:

*Metazoan megastory
Unfolds in ancient rocks.
Old testament
To new beginnings
Our heritage,
Our building blocks.*

We shall hear a great deal about our heritage at this PSSA conference, which promises to be another special one in Stellenbosch. No doubt we can go out after this conference and share the results of our palaeontological research

with the general public, especially school children who will carry the responsibility of caring for the future of Gondwanan fossils. A sense of caring for and interest in our heritage can be fostered through educational programmes, travelling displays and outreach programmes. Such activities now and within the next 20 years, in collaboration with museums, universities and other institutions locally and abroad, can stimulate new generations of palaeontologists in a New South Africa, to learn more about exciting things of the very old South Africa and other parts of Gondwana.

In closing, I would like to sing a song which could be considered "The Gondwana Anthem":

*Nkosi sikeleli i'Africa
Nkosi sikeleli S'America
Nkosi sikeleli Australia
India, Antarctica
Nkosi, Gondwana!*

Thank you.

B. MINUTES OF THE 9TH BGM OF THE PSSA

1. WELCOME: Francis Thackeray extended a warm welcome to everybody. Juri van den Heever was thanked profusely for organising the 9th PSSA meeting.

2. APOLOGIES were received from Ginny Watson, Mike Raath, Basil Cooke, James Kitching, Tom Mason, Norton Hiller & Lee Berger. Best wishes for a speedy recovery were extended to James Kitching.

3. A MOMENT OF SILENCE was held in tribute to the late Dr Gerrie de Graaff and Dr Trevor Rubidge Trevor-Jones.

Bob Brain spoke about Dr Gerrie de Graaff's contribution to palaeontology, with particular reference to his invaluable study of fossil rodents. Bob Brain also spoke about Prof Trevor-Jones, an orthopaedic surgeon who had studied fossils from Sterkfontein. He had described the type specimen of *Parapapio broomi*, in honour of Robert Broom; Broom in turn described another specimen in Trevor Jones' honour (*P. jonesi*). In fact it was largely Trevor-

Jones who had led to Broom's interest in Sterkfontein and the discovery of australopithecine fossils there (notably Mrs Ples).

4. MINUTES OF THE 8TH PSSA BGM HELD AT RHODES UNIVERSITY, SEPTEMBER 1994

Juri van den Heever proposed that the minutes (as published in PALNEWS) be accepted. Marius Loots seconded this proposal.

4a. MATTERS ARISING:

Human Paleoanthropology: Francis Thackeray noted that an International Human Palaeontology Congress, originally scheduled to be held in 1997, has now been postponed to 28 June - 4 July 1998, to be co-hosted by Wits University and the Transvaal Museum. Details are available from Lee Berger (Secretary General), Prof Phillip Tobias (President), or Francis Thackeray, Ron Clarke and Trevor Jenkins (Vice Presidents). The Human Palaeontology Association will hold the meeting ("Dual Congress 98") concurrently with the International Human Biology Association.

4b. EDUCATION:

Casts for educational purposes have been sponsored by a company called Hortor's Products. Francis Thackeray thanked the sponsors. The casts have been used in the Gauteng province, and will continue to be used for educational purposes.

5. TREASURER'S REPORT

Phillipa Haarhoff distributed the financial report. It appears that most income came from subscriptions, but several members had not paid up their subscriptions. Membership subscriptions were discussed. Marius Loots suggested that members pay every two years, and if they do not pay, a penalty be imposed.

6. ELECTION OF PSSA COMMITTEE FOR 1996-1998

Nominations received and accepted:

PRESIDENT:	Dr Roger Smith
VICE-PRESIDENT:	Dr Billy de Klerk

SECRETARY:	Dr Anusuya Chinsamy-Turan
TREASURER:	Phillipa Haarhof
PAL NEWS EDITOR:	Patrick Bender, with Sally Reynolds assisting.

In terms of the constitution of the PSSA, Francis Thackeray serves as Immediate Past President of the PSSA.

7. EDUCATION:

Francis Thackeray encouraged the PSSA to promote an awareness of the country's palaeontological heritage, especially among school children. He noted that progress was being made with regard to palaeontology being incorporated into school syllabi, and thanked all those involved in this necessary process. Amanda Esterhuizen, Jeanette Smith, Ron Clarke and Kathy Kuman (Wits), Francis Thackeray (Transvaal Museum) and others have helped to promote an awareness of Mrs Ples and other hominid fossils, in the context of South African prehistory being taught to school children.

Marion Duncan and Joseph Fink (associated with the BPI) are interacting with schools, marketing casts and organising educational supplements for schools, to help promote palaeontological heritage awareness. Francis Thackeray thanked them and Bruce Rubidge for their efforts.

Francis Thackeray referred to his Presidential Address, entitled "I have a Dream", in which he had appealed for the realisation of a possibility that he had expressed at the last Palaeontological Society BGM, held in Grahsmstown in 1994: the possibility that within 20 years, each school in the country should have a replica (cast) of Mrs Ples. This was a dream that could be realised. Of course, casts of other fossils of particular significance (eg Euparkeria, Massospondylus, Lystrosaurus, Thrinaxodon, A.robustus etc) should also be included as a package to schools, and such fossils should be incorporated in school text books.

Francois Durand mentioned that the Amateur Palaeontological Society of South Africa had done a lot to promote palaeontology. He encouraged professional scientists to use members of the Amateur Paleontological Society in excavations. Ludwig Dohne, Vice-Chairman of the Amateur Society reported on various recent activities arranged by that society.

Roger Smith spoke about the Langebaanweg fossil site, which is going to be turned into an educational centre. SAMCOR, National Parks Board and the South African Museum are involved in the project. Concepts for the centre are already well established.

Francis Thackeray mentioned that there are also plans to develop Sterkfontein as an educational centre.

John Long mentioned that Paul Willis, who used to study fossil crocodiles, has started a company with seven other vertebrate palaeontologists to give professional lectures and talks around Australia. They have been very successful.

Anusuya Chinsamy-Turan mentioned that workshops can be arranged at teacher training institutions to discuss the integration of palaeontology into teaching.

Billy de Klerk spoke about the National Science Festival in Grahamstown, scheduled for April 1997. He mentioned that the PSSA could take this opportunity to promote palaeontological heritage awareness. Next year's festival was soon, but we could plan to be involved in 1998 and 1999.

Francis Thackeray said that he had written to Minister Ben Ngubane, former Minister of Arts, Science, Technology and Culture. He had given strong support in principle for the PSSA's initiative to promote heritage awareness, but he could not promise financial support.

Francis Thackeray mentioned that in April 1997 there will be opportunities to celebrate the 50th Anniversary of the discovery of Mrs Ples, considered by many palaeontologists to represent a species (*Australopithecus africanus*) ancestral to all humankind.

Eddie van Wyk mentioned that different languages should be used to promote palaeontology. Francis Thackeray agreed and suggested that Braille be included in public displays. Eddie van Wyk also said the Natal Museum had a touch gallery. Juri van den Heever supported such initiatives.

Marius Loots and Billy de Klerk offered their services to set up a World Wide Web site for the PSSA. Marius Loots' email address is mloots@medic.up.ac.za.

Johan Welman mentioned the National Museum's efforts to educate the general public on palaeontology. They have appointed additional officers to help with this, and five members have been trained in African languages. Workshops for black school teachers have been held.

James Brink mentioned that there is a local community at Florisbad and that the site be opened to the public.

Francis Thackeray thanked everybody who had contributed to educational projects associated with palaeontology during the past two years.

8. TRAVELLING EXHIBITIONS AND FUNDRAISING

A travelling exhibit which Bruce Rubidge, Francis Thackeray and Johan Welman organised is doing very well. It features hominids, dinosaurs, therapsids, and rock art. It has travelled overseas and is now back in South Africa. It is now the property of the Arts, Science, Culture and Technology. Imogen Chesselet and others had contributed to the success of this travelling display. John Long spoke about the Great Russian Dinosaurs travelling exhibit which Pat Rich had organised. It was a huge success for the Australians, and also for Russian scientists who will benefit financially from the profits.

John Long and Francis Thackeray were very much in favour of the idea that PSSA Members and their associated institutions organise a travelling exhibit of South African fossils with due regard to security and insurance.

Francis Thackeray noted that the failure of "Dinamation South Africa" served as a lesson of what not to do. An attempt had been made to rush the exhibition of robotic models. The PSSA had been approached by individuals from overseas who wanted to help bring the exhibition to South Africa; the PSSA had endorsed it in principle, but to our embarrassment, subsequent arrangements had been made by a private company that called itself "Dynamation SA", without co-ordination and without involvement of PSSA Members. Francis said that if a travelling exhibit of South African fossils were to be arranged, it should be done professionally; proceeds from the exhibition could be made available to support South African palaeontology; formal contracts

should be prepared carefully in advance, and the PSSA should ensure that these be honoured. Francis Thackeray asked Roger Smith, the incoming President, to liaise with South African palaeontologists wishing to participate in such a travelling exhibit and to help co-ordinate such a travelling

exhibition, which might go to several countries. Original fossils and good quality casts could be displayed.

Barry Millstead said that geology and palaeontology should be promoted in schools as careers.

9. OTHER

9.1 Francis Thackeray thanked Billy de Klerk for his role as editor of the PSSA Newsletter.

9.2 Bruce Rubidge mentioned that he and Anusuya Chinsamy Turan are on a Committee of the National Monuments Council. He said that the PSSA should submit a policy document on palaeontology to the NMC. Francis Thackeray recommended that this be the task of the incoming Executive Committee.

9.3 Bob Brain congratulated Bruce Rubidge on his professorial status and his appointment to the Chair of Palaeontology at the University of the Witwatersrand.

9.4 New Bethesda locality: Professor Bruce Rubidge mentioned that although making a monument of a palaeontological site usually draws attention to the site and could be disastrous, he proposed that the New Bethesda locality be maintained as a monument.

9.5 Membership

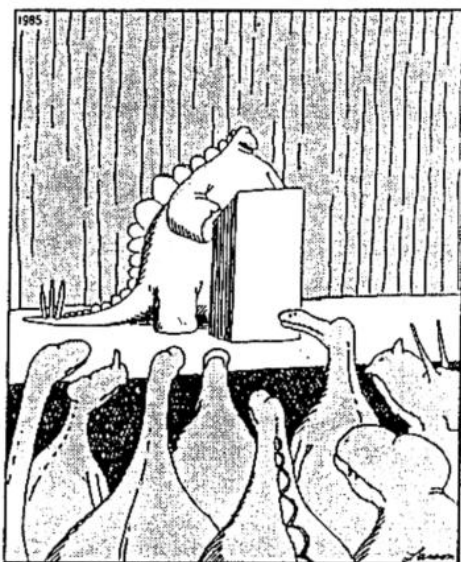
Pippa Haarhof asked whether the PSSA had a life membership policy. Some discussion of this followed. Francis proposed that it be discussed further by the Executive Committee and opened for discussion in PAL NEWS. Honorary Membership: proposals for certain members to become Honorary Members of the PSSA can be submitted to the Executive Committee.

9.6 Venues for the next PSSA: Pretoria, Bloemfontein, Natal, and Namibia were proposed. Namibia was voted as an appropriate potential venue for the 1998 PSSA meeting. Martin Pickford will approach the Director of the Windhoek Geological Survey. If the conference cannot be held in Namibia, Patrick Bender will examine alternative possibilities for a Pretoria venue

9.7 Francis Thackeray thanked everyone for being present.

9.8 Bruce Rubidge thanked Francis Thackeray for serving the PSSA as President, and in particular for his efforts to promote an awareness of South Africa's palaeontological heritage.

Draft minutes recorded by Anusuya Chinsamy-Turan



"The picture's pretty bleak, gentlemen.... The world's climates are changing, the mammals are taking over, and we all have a brain about the size of a walnut."

NEWS FROM:

JOHN ALMOND, GEOLOGICAL SURVEY, BELLVILLE:

John Almond (Geological Survey, Bellville) has been diverted in recent months from his usual fodder of Early- Mid Palaeozoic invertebrates and traces by a series of overseas visitors. A collaborative field trip in September (John Long, Western Australia Museum; Eric Anderson, JLB Smith Institute, Grahamstown; Fiona Evans, Univ. Stellenbosch; Patrick Bender, Geological Survey; and J.N. Theron) to collect fossil fish from the upper Bokkeveld Group in the Klein Karoo and Cedarberg yielded some very interesting material supporting a Givetian (late Middle Devonian: 380-370my) age for the Klipbökkop - Adolphspoor Formation placoderm/ acanthodian/shark ichthyofauna. Of particular interest are the first records of holonematid arthrodires and a variety of biostratigraphically- valuable antarctilamnid shark teeth, some unusually large, which should permit tighter correlation with Antarctic and Australian Devonian successions. Distinctive tooth whorls of onychodontiforms (the first record of this crossopterygian order from Africa), associated head/ girdle plates and squamation of climatiform acanthodians, and several useful articulated head/ trunk shields of groenlandaspid arthrodires were also recognised from older collections made by A.H. de Vries in the Warmwaterberg area. The apparent absence of thelodonts and bothriolepid antiarchs in the upper Bokkeveld fish assemblages may be palaeobiogeographically significant. In addition to fish remains, palaeoecologically interesting marine and restricted (delta platform?) facies trace fossils, lycopods and abundant, low diversity clumps of unionid bivalves were collected from the Klipbökkop Fm. A review of lower Bokkeveld (Gydo Formation, Emsian: 400- 390my) fish material from Survey and museum collections (especially the Oosthuizen collection, Zwartskraal) revealed, in addition to acanthodian fin spines, a couple of primitive antiarchs and the oldest identified chondrichthyan from Southern Africa. A joint preliminary paper on the Bokkeveld ichthyofaunas is in preparation for the *Palaeontographica africana* volume of papers presented at PSSA 96; a more detailed systematic account will appear at a later date.

In October a collaborative project with Professor I.D. Pinto and Ms K. Adami-Rodrigues (Federal University, Rio Grande do Sul, Brazil) to re-examine eocarid and other malacostracan crustaceans of the Whitehill Formation (middle Permian) was initiated. During an excursion to the Calvinia/ Louriesfontein and Worcester areas with the Brazilian visitors and Fiona Evans useful material of eocarid crustaceans, mesosaurid reptiles, palaeoniscid fish, trace fossils and a possible insect wing was collected. Pinto and Adami- Rodrigues were generally impressed by the good Whitehill exposures in the areas visited and by the apparent ease with which fossil material can be collected compared with the laterally equivalent Irati Formation (Passa Dois Group) in Brazil. A preliminary review of the new crustacean material as well as abundant, highly-compressed specimens in private and institutional collections suggests that a number of eocarid genera (and perhaps one or more syncarids), all previously referred to Notocaris, are represented in the Whitehill fauna. Of particular interest is undescribed, three-dimensionally preserved Crustacea from dolomitic nodules within the middle Whitehill (Oosthuizen and Survey collections) which closely resemble forms already described from the Irati Formation. In contrast to the normally "difficult" crustacean material, a substantial number of exquisite moulds of well- articulated palaeoniscoid fish (two genera at least) have now been collected from the Whitehill and will form the basis for a joint study by Fiona Evans and Patrick Bender early next year. This project should form a useful bridge between their current research on Early Carboniferous and Late Permian palaeoniscoids respectively, as well as an additional incentive to study contemporary actinopterygian faunas from elsewhere in Gondwana (eg. Brazil, Australia).

ERIC ANDERSON, J.L.B.SMITH INSTITUTE OF ICHTHYOLOGY, GRAHAMSTOWN:

Once again I played host (and chauffeur, wine steward, photographer and TV interviewer) to John Long of the Western Australian Museum, Perth, during his 1996 tour. These visits (first in 1994 for PSSA-8, etc.) should become rather regular, we hope, as more fossil fish are collected requiring his expertise. This time John's focus went beyond our Devonian for the first time in helping Fiona Evans and Patrick Bender with their studies on

paleoniscoid fishes, the subject of John's Ph.d work.

There were several reasons for John's visit this time, the main one being attendance at a two-year planned field trip with the Geological Survey into the Bokkeveld rocks of the Western Cape, timed in conjunction with PSSA-9 in Stellenbosch. Organized by John Almond and Hannes Theron, Fiona and Patrick joined up and the whole lot of us met in mid-September at the Warmwaterberg spa north of Barrydale in the Montagu District for two days collecting in the Middle Devonian Adolphspoor Fm. We then paid a visit to Roy Oosthuizen's farm and private collection which includes the largest and most diverse Bokkeveld fauna in the world. In it John Long identified remains of Africa's oldest fish: gill bars and an acapulocoracoid of a shark, and trunk plates of an antiarch placoderm, both Emsian in age (Gydo Fm., Lower Devonian). Next we trekked up into the Cedarberg. We wanted to explore an exposure of the Klipbakkop Fm. on the farm Grootrivierhoogte, where mudstone nodules and stream bed conglomerates occur. The fish remains we found were a small bonanza, with 3 types of sharks represented by teeth and spines, placoderm plates, acanthodian spines and an entire jaw set of a holonematid placoderm, Africa's first, found by John right on the surface, sort of like a fishy Lucy.

Our next stop was Cape Town and Stellenbosch for PSSA-9, after which John and Fiona made for the Survey's office in Bellville to begin preparation of the material we'd collected. At both Grootrivier and Bellville we were stalked by camera crews contracted by the SABC TV show 50/50 who are preparing a segment on research at the JLB Smith as part of our 50th anniversary celebration. John also put the producer (Mike Vincent) in touch with Australian TV who are sending some footage of him working at the Gogo Station site in Oz to round this out. Anyway, should be a good production and will air sometime early next year.

Further publicity of great import to South African palaeontology may result from John's visit. He spoke to several members about preparing a traveling fossil exhibit which would involve some of this country's most famous specimens to make a cross-country tour of Australia. This has been done before with Russian and Chinese specimens and was very successful, garnering large profits for the palaeontological communities of those (rather impoverished) countries. We need to check into this endeavour, and Society members should support such an effort 100% if called to action.

PATRICK BENDER - GEOSCIENCE MUSEUM, PRETORIA:

I completed a successful research trip to Europe and the U.K. in July where I managed to broaden my knowledge of palaeoniscoid fishes. I was glad to be able to meet with Cecile Poplin and Mike Coates, two very knowledgeable people in the field of palaeoniscid research. Prior to the PSSA conference I was fortunate to be part of a very fossilful field trip all across the southern Kaap-Karoo superbly put together by John Almond, Fiona Evans and Dr Hannes Theron (see news from Eric Anderson for more details), much new light was cast onto ancient South African Devonian waters! At the PSSA I introduced the nuts and bolts (scales and skeletons) of my Ph.d thesis: lower actinopterygian fish of the Upper Permian at Wilgebosch, New Bethesda district; this theme will be developed in the coming months (John Long has contributed a few invaluable sessions). I will do a fairly big-dig at the site in December, hoping to extend the palaeo fish fauna. Over the past year or so I have raided most collections in South Africa, this has been essential to a basic understanding of the palaeoniscoid fauna, thanks to all concerned. The Albany, McGregor, National, South African and Victoria West Museum collections have yielded, together with the BPI, a variety of interesting and valuable palaeoniscid specimens. An interesting new deep-bodied specimen collected by Johan Welman and Johan Looek from Phillipolous, will be used as a reference specimen because of its rare, complete state. Zhenia Sytchevskaya (Palaeontological Institute, Moscow) and I have jointly looked at some Lower Beaufort Group palaeoniscids: two papers are in preparation. I hope to get over to Australia next year to look for similar Upper Permian palaeoniscids....

BPI PALAEOLOGY, WITS UNIVERSITY, JOHANNESBURG

James Kitching has sadly, really retired from the BPI, but not yet from palaeontology. The department hosted an intimate farewell lunch for him and Betty in October. On the 26 October 1996 James Kitching would have been at the BPI for 51 years, but he did not quite make 51 years as he left the BPI five days earlier (on 21 October) to live in Graaff Reinet where he spent his childhood years. We are all going to miss his presence but know that he'll be happy tramping through his beloved Karoo in search of more fossils!

James might have retired, but we are thrilled to welcome back **Mike Raath**, previously the Director of the BPI, who has recently taken early retirement from his post as Director of the Port Elizabeth Museum. Mike arrived in July to take up the newly created position of Curator of Collections at the University. This is a huge undertaking as, apart from being responsible for the large fossil collections of the BPI, he also has responsibilities for the collections in the Geology Department and the Department of Anatomical Sciences at the Medical School. Mike's initial focus has been to assess the current curatorial status of each of the many collections in these three departments, and to establish what short-, medium- and long-term problems face each of them. The main problems are clearly the long-standing ones of space, personnel, funding, and documentation. We know that Mike is the right person to solve them all!

Marvin Carstens has recently joined the BPI staff to be in charge of the museum and the organisation of school visitation. Marvin is also a recruit from the Port Elizabeth Museum where he was involved in making reconstructions of prehistoric animals for their displays.

Two palaeontologists from the Palaeontological Institute in Moscow have recently visited the BPI. They are **Michael Shishkin**, a specialist on fossil amphibians and his wife, **Zhenia Sytchevskaya**, a fossil fish expert. Shishkin spent five months at the BPI in 1994 on a Wilson Research fellowship researching temnospondyl amphibians from the Middle and Upper Beaufort Group together with Bruce Rubidge, James Kitching and John Hancox. This proved so productive that the FRD has sponsored Professor Shishkin's second visit to complete some of the projects initiated in 1994. Zhenia is working closely with Patrick Bender from the Council for

Geosciences and a PhD student of this University as well as Heidi and John Anderson from the Botanical Research Institute in Pretoria.

-CONFERENCES:

Ann Cadman presented a paper (with Sue de Villiers) at the 9th International Palynology Congress in Houston, USA, in June this year. The paper was entitled "Tertiary Compositae pollen of the West Coast of Southern Africa". In July **Marion Bamford** attended the 5th Quadrennial Conference of the International Organisation of Palaeobotanists in Santa Barbara, California, and presented a paper entitled "Mesozoic coniferous woods from southern Africa."

John Hancox and **Bruce Rubidge** attended the 30th International Geological Congress in Beijing, China where John presented a paper on the basinal development of the Upper Beaufort and Molteno, and Bruce, together with John Hancox and Michael Shishkin (Palaeontological Institute Moscow), presented a biostratigraphic correlation of Triassic rocks of South Africa with those from Europe and Asia based on their fossil amphibian content. While in Beijing, Rubidge and Hancox also visited the Institute for Vertebrate Palaeontology and Palaeoanthropology (IVPP), and the Geological Museum to study Triassic dicynodonts in their care and compare them with similar forms from South Africa in a collaborative project with Li Jinling from the IVPP. While sorting through the Beijing collection they found that one of John's *Cynognathus* Zone dicynodonts is actually a *Shansiodon*. This is an extremely significant discovery as it is the first record of *Shansiodon* from the southern hemisphere.

Before returning to South Africa Bruce and John joined the post conference excursion to the Junggar and Turpan Basins in Xinjiang Province where there are remarkable successions of sedimentary deposits extending right from the Cretaceous to the Jurassic. Here we had the delightful pleasure of collecting *Lystrosaurus* and kannemeyeriid bones in China.

At the end of September the whole department descended on the University of Stellenbosch for the 9th Biennial conference of the Palaeontological Society of Southern Africa. The Honours students, **Darlington Munyikwa** and **Ian Visser** presented a paper and poster, respectively, on their research projects on vertebrate fossils. **Alain Renaut** (PhD student) gave a paper on the morphology of the dicynodont *Kannemeyeria* and **Elizabeth Latimer**

(PhD student) presented her research work on the rhinesuchoid amphibians. **Bruce Rubidge** spoke on vertebrate biostratigraphic changes along the Ecca-Beaufort contact in the southern Karoo, and on a new dicynodont therapsid from the Ecca-Beaufort contact at Williston. **Chris Gow** presented a paper on teaching palaeontology. From the botanical contingent of the department, **Ann Cadman** presented a paper on the Tertiary Compositae pollen of the West Coast and **Sue de Villiers** presented her PhD research on pollen from three sites of Tertiary age in Namaqualand. **Marion Bamford** presented a paper on the Permo-Triassic woods from the Fort Grey silcrete, East London. This research was a joint study with geologist **Dave Roberts** from the Council for Geoscience, Bellville, and palynologist, **Barry Millstead**, from the Pretoria Council for Geoscience.

-3RD SYMPOSIUM OF AFRICAN PALYNOLOGY

To maintain this exchange of ideas, **Ann Cadman**, **Sue de Villiers** and **Marion Bamford** are organising the 3rd Symposium of African Palynology at Wits University, 15-19 September, 1997. This conference covers both fossil and modern pollen, and a botanical field trip to the Cape and back, looking at the many different veld types, has already been tested. The field trip will take place just prior to the symposium. Anyone interested in participating can contact Sue at BPI: Tel: 011 716 2727, Fax: 011 403 1423, e-mail: 106CAA@cosmos.wits.ac.za

BOB BRAIN - TRANSVAAL MUSEUM:

Bob Brain continues to spend his research time on the search for Late Proterozoic fossil micro-invertebrates, from the 550 million-year-old Mooifontein limestone in the Bethanie area of Namibia. He is still concentrating on limestone enclosures in a chert/ashbed layer and spent time during July at his study site, after the PSSA meeting in Stellenbosch. On the way there he also collected samples of the slightly younger Huns limestone in the Vioolsdrift area of Namaqualand, where this sediment is in contact with a prominent ashbed and where selective silicification of micro-organisms has also occurred. Now the long process of sorting acetic acid residues and of Laura's thin-section grinding of hopeful chert samples continues, until Bob

heads west again to sleep under a kameeldoring tree and refresh himself with the desert air (and a little nocturnal whisky).

ANUSUYA CHINSAMY-TURAN, SA MUSEUM, CAPE TOWN

1996 has certainly been an eventful year! The highlight of which was the birth of our son, EVREN at the end of May. He has Yunus and I wrapped around his cute little finger! I guess I should stop myself from telling you about the joys of motherhood, and rather tell you about my work in science. Yes, I actually managed to get some research done this year!

The year began with Luis Chiappe (AMNH, New York) and I reporting in *Nature* on the dental nature of *Pterodaustro's* teeth. This paper was very well received and led to Alex Kellner (Brazilian Academy of Sciences), and I doing more research regarding the microstructure of pterosaur teeth which we recently presented as a poster at the pterosaur symposium at the SVP meeting in New York in October.

In March, I attended the FRD Awards evening to receive the prestigious President's Award. This award recognises young scientists with potential to be world leaders in their field and provides the financial opportunity to establish oneself. Just before going on maternity leave, Paul Barrett (Cambridge University) and I wrote and submitted an interesting paper entitled: "Sex and old bones". Watch out for this in JVP!

Most of my research time was spent working on the bone histology of the dinosaurs from Dinosaur Cove of south-eastern Australia. Tom Rich (Museum of Victoria) and Pat Vickers-Rich (Monash University) and I found that two dinosaurs living in the same polar environment exhibited very different growth strategies: the theropod, *Timimus*, experienced alternating periods of slow and fast growth, while the contemporaneous Victorian hypsilophodontid grew at an uninterrupted sustained rapid rate. Our findings are currently *in press* in JPV. More recently, Tom and Pat decided that in the name of science, two more of their precious polar dinosaurs (one of which was *Leaellynasaura amicographica*) could be sacrificed for further histological analyses. Our most recent findings will shortly be submitted for publication. A fascinating spin-off of this work on polar dinosaurs was the identification by Ed February (SA Museum) of a piece of wood *within* the marrow cavity of the hypsilophodontid! Besides polar dinosaurs, wood and pterosaurs, I have also

been working on bird microstructure! Larry Martin (Kansas Museum) and I are investigating the bone histology of Cretaceous ornithomimid birds, *Archaeopteryx* and *Ichthyornis*. In addition, I am currently preparing a chapter on Mesozoic bird bone histology for a book which Luis Chiappe and Larry Witmer are editing.

Amanda Curtin (University of Stellenbosch) has recently completed a project which I co-advised with Juri, on the bone histology of the therapsid, *Glanosuchus*. She serial sectioned a femur and documented the histology throughout the bone. My Argentinian PhD student, Leonardo Salgado, is working on the bone histology of the fascinating sauropods he and his colleagues are uncovering in Argentina. Considering various other aspects of the finds he (and I) are hoping to obtain a better understanding of sauropod palaeobiology.

In September I taught a course in vertebrate palaeontology at UCT and at the end of the month attended the PSSA conference in Stellenbosch. At this meeting, I presented a paper on *Pterodaustro's* bizarre filter feeding apparatus. In October, I attended the SVP meeting at the AMNH in New York where I gave an oral presentation of polar dinosaur bone histology and a poster presentation (as mentioned above) on pterosaur teeth. I also went on the pre-conference excursion to the fossil bearing deposits of the New Jersey coastal plains.

In December, just before I take a much needed vacation, I will attend a conference at UWC on the "Public Understanding of Science". All in all, this has been a hectic year!

Recent Publications:

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Chinsamy, A. (1995) Ontogenetic changes in the bone histology of the Late Jurassic ornithomimid *Dryosaurus lettowvorbecki*. *Journal of Vertebrate Palaeontology*, 15(3): 96-104.

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Chinsamy, A. (1995) Histological perspectives on growth in the birds *Struthio camelus* and *Sagittarius serpentarius*. In: Peters, S. (ed) *3rd*

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1992. Courier Forschungsinstitut Senckenberg 181:317-323.

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Chinsamy, A. & P. Dodson. (1995) Inside a dinosaur bone. *American Scientist*. 83:174-180.

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Chinsamy, A., Hanrahan, S.A., Neto, R.M. & M. Seeley (1995) A skeletochronological assessment of age in *Angolosaurus skoogi*, a lizard living in an aseasonal environment. *Journal of Herpetology* 29(3):457-460.

Farlow, J., P. Dodson, A. Chinsamy (1995) Dinosaur palaeobiology. *Annual Review of Ecology and Systematics* 26:445-471.

In press:

Chinsamy, A. Dinosaur collections in the South African Museum, National Museum and Bernard Price Institute for Palaeontological Research.
In: Currie, P. & Padian, K. (eds) *Encyclopaedia of Dinosaurs*.

Chinsamy, A., Rich, T. and Vickers-Rich, P. Polar dinosaur bone histology. *Journal of Vertebrate Palaeontology*.

Chinsamy, A., February, E., Harley, E., Rich, T. and Vickers-Rich, P. Wood within a polar dinosaur bone. *South African Journal of Science*, 92.

Chinsamy, A. Implications of fossil bone microstructure. *Palaeontologica africana*.

Chinsamy, A. and Barrett, P. Sex and old bones. *Journal of Vertebrate Palaeontology*.

ARTHUR CRUIKSHANK - LEICESTERSHIRE MUSEUMS SERVICE
AND GEOLOGY DEPT, UNIVERSITY OF LEICESTER, U.K.

Since returning from my round-Gondwana trip earlier in the year I have been involved in finalizing MSS started then. This includes a very productive return visit from Ewan Fordyce (Otago University) settling details of our new leptoclidid plesiosaur, one decent and two short papers with John Long on Western Australian material (Pliosaurids from the Early Cretaceous, historical odds and sods and the first Early Cretaceous theropod from Western Australia) and a submission of the Palaeoecology of the Molteno Formation and Lower Elliot Formation with John and Heidi Anderson, to Palaeontology. Watch these spaces! Out this year so far is the New Crested Maniraptorian from Brazil (with Dino Frey and Dave Martill among others), a Pistosaurus-like plesiosaur from the Lower Lias of England and for the (28th November) a review of the cranial anatomy of *Rhomaleosaurus thorntoni*. Expected any day now also is an account of a new, pachyostotic, pliosaur from the Middle Jurassic (Clallovia) Oxford Clay. This seems to be playing at being a benthic arthropod-feeder, and may even turn out to be the juvenile of one of the better known genera. I also submitted a revised, post-refereed, MS on '*Plesiosaurus*' *capensis* to the Annals of the South African Museum, which has been in the hatching since 1993. Current projects include the revised, full, cranial osteology of the crested beast, and a new turkey-sized theropod from the Early Cretaceous of Brazil, represented so far by the most beautifully preserved pelvis and sacrum - mahogany coloured bone in a cream-coloured limey matrix which separates from the bone on a thin line of calcite. All in 3-D - a Preparators dream! Colin McHenry (Brisbane) visited to discuss large pliosaurids, apropos his project on *Protonosaurus*...but we have even bigger things in the Oxford Clay! and Leslie Loew is well into his PhD on exactly those large marine predators. I think that's all!

Regards to all,
Arthur Cruickshank

BILLY DE KLERK - ALBANY MUSEUM, GRAHAMSTOWN

The second half of 1996 has been particularly busy from a palaeontological perspective. You may recall in the last issue of Pal News, I mentioned that Callum Ross and I were about to go off on a six-day field trip to continue our search for Cretaceous dinosaurs and mammals in the Algoa Basin at the end of June. I said: "- so hold thumbs, we may yet find an elusive beast!" Prophetic words indeed, because we did bag a superb little dinosaur. On the second-last day of our field trip (inevitably) we came across an almost complete skeleton of a small dinosaur about the size of a turkey. It was carefully excavated with the usual method (cased in plaster-of-paris and hessian) and removed to the Museum for preparation. Initially it was identified as a small ornithomimid dinosaur, but after removal of some of the mudrock matrix it was established that it was in fact a small theropod.

This discovery is most exciting because not only is it a theropod, but it's the first articulated skeleton found in the Kirkwood Formation sediments. Since mid-July I cleaned it up as best I could, and then in October I packed it off to the BPI at Wits where I worked on it for a good two weeks. - uninterrupted! Bruce Rubidge, Chris Gow and Mike Raath were ever on hand to advise and keep an eye on my preparation progress. I am most grateful to them for all their help and hospitality. While in Johannesburg I even took time off to go and watch the Currie Cup rugby between Natal and Transvaal at Ellis Park - what a blast! I believe that I've made substantial inroads into "Kirky", as this little chap is now fondly known, and I now have the complete "lie of the land", so to speak, of where the various bones are located. Good news is that the skull is there! - or most of it at least. I'M SKINNING THIS CAT VERY SLOOOOOOWLY!

Scratching around in other Kirkwood exposures we found many more bone fragments and teeth. In particular the Kirkwood Cliffs site yielded more small ornithomimid dinosaur bones and I also found a superb snout with teeth. All of this new ornithomimid material is being written up with Dr Catherine Forster from the State University of New York at Stony Brook.

September was devoted to the preparation for and attendance of the 9th PSSA conference in Stellenbosch. Prior to the conference Eric Anderson and I gathered as much of the undescribed Devonian fish fossil material that had been collected from the Grahamstown N2 bypass site together in preparation for John Long's visit in early September. It was an absolute pleasure to again see John Long (Western Australian Museum, Perth) in town for a few days before he and Eric pushed off on a field trip to the Devonian of the Western Cape.

At the conference my colleagues and I presented a poster on the new vertebrate discoveries being made in the Kirkwood Formation and we were rewarded (yet again!) with the "Lystrosaurus Trophy" for best poster at the conference. In addition I presented a more technical paper, in collaboration with my Museum artist colleague Gerhard Marx, on dinosaur construction at our Museum.

Apart from all the above activities I've also been on the hop investigating reported fossil occurrences from various parts of the Eastern Cape - particularly in the Beaufort of the Karoo. I had the opportunity to visit a fairly new game farm development called "Sante Sana", about 35 km east of Graaf-Reinet, where some therapsid fossils were found while new roads were being developed on the property. I excavated a fairly good specimen of Aulocephalodon which is now being prepared for display in our new Palaeontology Gallery. Gerhard Marx also completed a superb painting depicting a palaeoreconstruction of the fauna, flora and landscape of the Eodicynodon Zone - lowest part of the Beaufort Group in the Karoo.

FRANCOIS DURAND, SOUTH AFRICAN SOCIETY FOR AMATEUR PALAEONTOLOGISTS:

I would like to thank Francis Thackeray for giving me the opportunity to report briefly on the activities of SASAP at the PSSA AGM in Stellenbosch. Since it was an impromptu report, I left out several noteworthy projects with which SASAP has been involved with over the past few years.

SASAP has been involved with research projects on the Limpopo and Kruger National Park since 1994. SASAP has conducted both fossil collecting and preparation in southern Zimbabwe in 1994-1995 for the Natural History Museum in Bulawayo under the supervision of Darlington Munyikwa and myself.

SASAP accompanied me on two occasions to the Vhembe Nature Reserve and surrounding farms to collect fossils for the Council for Geoscience. This year the society managed not only to collect, document, identify and prepare fossils from the Kruger National Park, but was also responsible for the compilation of a information booklet on *Euskelosaurus* on site. SASAP has acquired through the past five years equipment and has now got a fully equipped field laboratory where workshops and research can be done out in the veld. The field laboratory was put to test in the Kruger National Park this year and worked very well.

I have been assisted over the past four years by SASAP on my project in the Natal Midlands where they have helped me to collect, document and prepare fossils. Heidi Anderson of the National Botanical Institute also has a mutually beneficial relationship with SASAP - in exchange for her guidance and training we accompany her on fossil collecting trips. SASAP also helped Johannelie Snyman of the Council for Geoscience by collecting fossil wood under her supervision in the Free State when she did research for her MSc dissertation.

I am regularly amazed and humbled by the abilities and expertise of the members of SASAP. Amongst our members we have a professional book editor (until recently attached to Brenthurst Library and now at Southerby's), who is responsible for the editing of most of our publications.

Several qualified archaeologists, who are either members of SASAP or sympathetic to our cause, enthusiastically oversee and participate in many of our excavations, especially those which, as the National Monuments Council pointedly puts it, are of a Miocene, Pliocene, Pleistocene or Holocene age. Thanks to one of the SASAP members, who is an aeroplane pilot, we have been using the GPS to plot the fossil localities for the Council for Geoscience for more than five years, long before most local palaeontological or geological institutions did. Certain SASAP members who are palaeontologists and geologists initiate or actively take part in the projects supported by SASAP.

SASAP formed, with the University of Pretoria Medical School and the Transvaal Museum, a research co-operative called GENESIS STUDIES which was responsible for the excavation, identification and documentation of the Quaternary bone remains in the talus cone at Wonder Cave. Marius Loots gave a presentation on this project, which was successfully completed in less than two years, at the PSSA Conference in Stellenbosch this year. This project gave many people (scientist and layperson alike) the opportunity to be exposed to this field of research from which they were previously excluded.

Although we are indebted to the professionals amongst the SASAP members who voluntarily offer their services (free of charge) to the Society, we do not judge people by their socio-economic or academic background. A lot of time and effort have been put into the projects tackled by SASAP by the ordinary layperson who makes up the majority of our membership. There are for example people who regularly put in their annual leave to accompany palaeontologists on field trips, people who spend their weekends preparing fossils at the Council for Geoscience and those who contribute to and produce our publications.

This proves the point, originally made by our founder Colin MacRae, in 1991; that the ordinary citizen can play a crucial role in the preservation of our fossil heritage and scientific research. Lay people are not the opposition or threat many palaeontologists and archaeologists make them out to be. Many of these talented and enthusiastic people are just waiting for an opportunity to be accommodated within the fold. Many of them are well qualified, but in some way have been marginalised by pressure groups within the scientific community, who regard palaeontology and archaeology (or certain aspects thereof) as their sole domain. SASAP gives these scientists and concerned lay people alike, the opportunity to be exposed to

palaeontology in a practical and meaningful way.

Of course, since one of SASAP's biggest battles is against elitism, we do not view knowledge and access to our fossil (and archaeological) heritage as any one individual's or organization's exclusive right and therefore actively endeavour to convey the message to the wider community. Our outreach programme includes assistance to municipal museums and community information centres in order for them to be able to put up palaeontological displays. Some of the museums we assisted include those at: Bulawayo, Howick, Himeville, Harrismith and Potgietersrus. In short - we take palaeontology to the people and the people to the fossils.

SASAP Members enthusiastically take part in programmes which have been broadcast on 50/50 and other educational TV slots (in several of our indigenous languages) and the radio. We regularly invite schools and conservation societies on our field trips. Several SASAP members who are teachers had the opportunity to give their pupils direct access to palaeontology, geology and evolution through SASAP long before these subjects were even considered for inclusion in the curriculum. Our column in **Archimedes**, running since 1992, focuses mainly on South African palaeontology. This popular scientific magazine has 16 000 subscribers, consisting mainly of school pupils, teachers and school libraries.

This may be one of the reasons why I do not contribute regularly to PALNEWS - I am just too busy communicating with people who do not read PALNEWS.

FIONA EVANS - STELLENBOSCH UNIVERSITY

It was really great to have team of palaeontologists (6 of us) on the trail of Devonian and Carboniferous fish fossils (not to mention the pygocephalomorph crustaceans!) We even had the 50/50 film crew documenting all our exciting finds (watch the box in Dec/Jan!). It was a tremendous boost for me to have a gathering of the palaeoichthyological "clan" just before the PSSA conference; and what a treat to have John Long cast his expert eye over my fish fossils and give such a lot of advice at a critical stage of my thesis! We are planning a couple of publications as a result of this field collecting trip. At present I am in the throes of feverishly writing up my MSc after giving a brief talk at our 2-day Departmental conference at Stellenbosch. An interesting and in some ways fruitful trip to the Whitehill Formation in the Calvinia and Louriesfontein districts with Prof Pinto and Mrs Adami-Rodregues, both visiting from Brazil, yielded several possible new genera of crustaceans, some fantastic palaeoniscoid fishes (and another insect wing???)

HEIDI FOURIE, TRANSVAAL MUSEUM, PRETORIA:

I spent one month in France learning technical techniques in the laboratory of the Vertebrate Palaeontology Department of the National Museum of Natural History. My knowledge was broadened in moulding, casting, sandblasting, mechanical and acid preparation, display management and photography. I am eager to apply some of the skills at the Transvaal Museum.

Paris was wonderful, it was autumn and not too cold and it rains daily. I stayed in the Hotel Bastille and used the Metro to get around. My visits included the Louvre (Mona Lisa), Eiffel Tower, Grand Gallery (very impressive!) and many small museums, churches and monuments.

I spent a long weekend in Burgundy with Dominique Gommery and his family, who own a bakery there. This province is beautiful, with it's churches, castles and vineyards.....which reminds me of the tasty wines! Now I have to get back into finishing off my PhD, which I will hopefully submit in the early half of next year.

DAVE ROBERTS - COUNCIL FOR GEOSCIENCE

Recent fossil discoveries in the Southwestern Cape.

1. Miocene aeolianites

The aeolianites of the southwestern Cape are regarded as Mid- to Late Pleistocene in age. They are traditionally viewed as the products of onshore deflation when large tracts of former sandy seafloor was exposed during sea level lowstands of the last glacial event (eg Rogers 1980; Tankard and Rogers, 1978). Several aspects of a north-south trending dune system between Saldanha and Paternoster (110 - 130 km north of Cape Town on the west coast) hinted at a much greater age. These include: reddish colour; exceptionally high CaCO₃ content (~97%); apparent conformable contact with underlying Late Tertiary beach sediments; and exceptionally large specimens of the dune gastropod *Trigonephrus globulus*, together with *Dorcasia* sp., another dune snail which does not occur elsewhere in the area. An intensive search for fossil evidence turned up unusually thick (3 mm) ostrich-like egg shell fragments with pores grouped into islets from 3 - 8 mm in diameter. These were identified as the giant struthious bird *Diamantornis wardi*. Senut and Pickford (1996) have erected a chrono-/biostratigraphy in Namibia based on evolutionary patterns of pore groupings on struthious egg shells. An age of 11-12 Ma (Mid-Miocene) is indicated by *D. wardi*. Subsequent finds of mammalian axial skeletal remains, in particular a humerus tentatively identified as the three-toed horse *Hipparion*, may confirm the Mid-Miocene age of the dune system. Coastal dunes provide a window onto climatic conditions at the time of their formation. The prevalent (southerly) wind directions and Mediterranean, semi-arid conditions as suggested the presence of dune gastropods *globulus* and *Dorcasia* sp. point to a Mid- Miocene climate not dissimilar to that of the present.

2. Saldanha Yacht Club Fossil Site.

Vertebrate fossils have been exposed in caves (probable solution cavities) near the contact between Langebaan Limestone Formation and Cape Granite suite. Rounded granite clasts and marine molluscs at the contact (elevation - 6m a.m.s.l.) indicate marine planation of the granite prior to the emplacement of the Langebaan Formation aeolianites.

Macro-mammalian fossils in the caves are thought to have been accumulated by hyenas. A large vertical solution feature, probably interconnected with the hyena dens, contains numerous micro-mammalian fossil bones. These appear to be the remains of owl pellets accumulated over a prolonged interval. Neither of these fossil occurrences have been studied, so the faunal range and age are presently unknown. Similar deposits in the area however, date from the Mid- to Late Pleistocene.

3. Hominid Footprints at Kraalbaai, Langebaan Lagoon.

Fossil hominid and animal footprints were recently found at Langebaan Lagoon, situated about 100 km north of Cape Town on the west (Atlantic) coast. The prints are preserved on foreset laminae in a calcified backshore dune ridge, fringing the northwestern margin of the lagoon. The aeolianites rest comfortably on bioturbated, calcified, shelly Pleistocene lagoonal sediments. Two complete footprints and the remnants of an eroded third footprint are preserved in negative epirelief on a tangential toeset. The rear print represents the right foot and the front print the left print, and both are about 25 cm in length. Sand displaced during weight transfer form ridges on the downdip of the prints. The stride length from heel to heel of the two entire prints is ~60 cm. The prints descend diagonally down the dune slip-face, which prior to dislodgement of the sandstone block dipped northerly at about 7°.

The footprints were made when the sand was dampened by rainfall and then were rapidly buried by an advancing dune slip-face about 80 cm in height. Autumn or Spring are the most likely periods for rainfall followed by sand mobilisation by dry, southerly winds. Subsequent to stabilization of the dune systems by vegetation, the dunes were calcified, thus preserving the footprints, later to be excavated by aeolian erosion during the Flandrian transgression. The footprints were apparently made when the sea level was about 1.5 m a.m.s.l. An infrared stimulated luminescence date on the dunerock gave an age of ~ 83 ka i.e. oxygen isotope stage 5c. However, sea level was higher than present only during stage 5e (Gallup et al.; 1994). This date may therefore be too young. A period equivalent to the latter part of stage 5e (~120 ka) when sea level was falling from its highest levels (~6 m) is more probable. The East London hominid footprints, which were formed under circumstances very similar to those at Langebaan (Mountain, 1966), were dated at 29 ka but this

date is unreliable and probably too young.

Fossil human remains at Klasies River on the Cape South coast are of similar age to the Langebaan footprints (Klein, 1975) and are anatomically modern, suggesting that the Langebaan footprint maker was *Homo sapiens sapiens*. The Langebaan prints are large (25 cm) relative to their East London counterparts (19 cm), and probably represent an adult male.

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ROGER SMITH, SA MUSEUM - DIV. OF EARTH SCIENCES,
CAPE TOWN:

NEWS FROM SAM KAROO PALAEO LAB (May-November 1996)

BETHULIE BONEBED: In May we spent a physical week on Fairydale in the Bethulie district excavating a bonebed that Annie had found when we were there with National Geographic earlier in the year. The female dominated team included Annelise, Hedi (preparator) and Georgina (volunteer preparator) proved that excavating fossils is not a male prerogative. The 3m-long plaster jacket took a lot more hessian and plaster than we had brought but thanks to Johan Welman at National Museum, Bloemfontein we were able to get enough to finish the job. Hedi has begun preparation and has already uncovered 8 *Lystrosaurus* skulls in a jumble of smaller skeletal elements. It is hoped that this specimen will reveal some information to explain the abundance of *Lystrosaurus* skeletons at this locality.

ETJO ERYTHROSUCHIDS: July was taken up with fieldwork in Namibia on the Omingonde Fm. at Etjo Mountain. My interest lies in the sedimentary environments and taphonomy of the ?Mid Triassic vertebrate fauna that lived in this half graben offshoot from the main Karoo Basin. We also excavated an *Erythrosuchus* skeleton from a river bed near Etjo. The fossil was found by a German student several years ago. After visiting the locality last November, I encouraged the Director of the Namibian Geological Survey to urgently raise funds for rescuing this very rare and valuable fossil from being destroyed by subsequent floods. The Namibian Offshore Oil Producers (NAMPOA) donated the money and we offered to do the excavating as well as train two preparators to clean the fossil. The field team, comprised myself, Annelise Crean and Paul October and 7 men from the Geological Survey of Namibia. The extra manpower and a portable rock hammer was necessary to excavate the 3m-long skeleton preserved in solid sandstone. After 16 long hot and dusty days of digging and plastering we finally had the fossil out of the hole in three large pieces which were subsequently transported by truck to Windhoek. Whilst excavating we encountered a second skull of the same species lying alongside the first

skeleton- a superb find but it considerably increased the size of the excavation. The team worked tirelessly under Paul and Annelise's expert supervision and managed to meet the deadline- a tremendous effort by all.

In the course of my sedimentological logging of the fluvial Omingonde sediment I located a complete bauriamorph skull and a single slab containing 3 small cynodont skulls resembling *Trirachodon* along with abundant scattered postcrania. The latter specimen had to be plastered to remove it successfully. This was very difficult as the locality could only be reached by scrambling up 800m of very loose and steep shale slopes with thick thornscrub on all the scree slopes.

It took 3 attempts to bring it down in two pieces but well worth the effort. These fossils have been brought to SAM for preparation. Prof Farish Jenkins (Harvard Univ) and Dr Niel Shubin (Pennsylvania) joined us for a few days to see how we prospect for fossils. They were looking for early mammals and lissamphibia and started a small quarry on Klein Etjo but results were not encouraging. Farish couldn't tolerate the thorns so he bought pruning shears to cut his way through the bushes- no wonder he lost enthusiasm for the place.

Two Namibian trainee preparators spent 21 days in the Karoo Palaeo lab during August this year. They were taught the basic techniques needed to be able to prepare the *Erythrosuchus* fossil and hopefully form the nucleus of a palaeo lab in the Geological Museum of Namibia. Thanks to "tannie" Martha Claasens of Fairydale for all her hot water and generous hospitality.

-SVP CONFERENCE, NEW YORK AND CONTINENTAL JURASSIC SYMPOSIUM, FLAGSTAFF- OCTOBER 1996:

This years Society of Vertebrate Palaeontology annual conference was hosted by the American Museum of Natural History in New York. It co-incided with the completion of their new palaeontology galleries which delegates were able to peruse at will after-hours. A surfeit of beautifully mounted fossil skeletons- my favorite being a hadrosaur with all its skin still preserved. Some 700 presentations were made over 4 days in 2 parallel sessions and posters. I was allocated poster space which I filled with therapsid coprolites. A professional looking computer-generated full colour poster- produced on a desk top PC with scanner and Corel Draw (thanks to Marius

Visser, Stellenbosch Univ). One of the highlights of the week was a glimpse of the first "feathered dinosaur" fossil recently found in China another was a visit with Anusuya to Macy's- the largest department store in the world. Numerous contacts were made and renewed at the meeting including useful discussions with 3 students who intend visiting SAM next year to conduct research projects.

The following week I flew to Flagstaff Arizona to participate in a special symposium concerning the worldwide occurrence of non-marine strata of Jurassic age. The aim of the conference was to produce a state of the art conference proceedings volume as well as bring like-minded specialists together to share their current research findings. With a manageable 102 delegates, this meeting was far more relaxed and allowed time to properly discuss papers. I gave a talk on the origin of the "Tritylodon Acme Zone" of the Elliot Formation in South Africa. I was able to study similar fossils in the collections at the Museum of Northern Arizona. Three days following the conference I visited Jurassic exposures north of the Grand Canyon which contained several dinosaur footprint sites. This was a timeous visit because on my return I learned that a new Jurassic ?dinosaur footprint site has been found by a ranger in the Waterberg National Park, Namibia. The Namibian Geological Survey has asked me to investigate, a task that I hope to do before year-end. Other activities included the PSSA conference (thanks to Juri and his crowd for a very enjoyable meeting) and a TV interview on the Whitehill Fm at Matjiesfontein to sing the praises of Alex Du Toit and his confirmation of continental drift. This will be broadcast next year on PBS and BBC. A week with the Friends of the Museum at Meltonwold came up with another intertwined pair of Diictodon skeletons which still needs to be excavated.

FRANCIS THACKERAY, TRANSVAAL MUSEUM, PRETORIA:

WHERE HAVE ALL THE FOSSILS GONE?

WHERE HAVE ALL THE FOSSILS GONE?

LONG TIME PASSING.

WHERE HAVE ALL THE FOSSILS GONE?

LONG TIME AGO.

WHERE HAVE ALL THE FOSSILS GONE?

GONE TO MUSEUMS - SOME OF THEM.

WHEN WILL WE EVER LEARN?

WHEN WILL WE EVER LEARN?

WHERE HAVE ALL MUSEUMS GONE?

LONG TIME PASSING.

WHERE HAVE ALL MUSEUMS GONE?

LONG TIME AGO.

WHERE HAVE ALL MUSEUMS GONE?

GOING TO THE PEOPLE, EVERY ONE.

WHEN WILL WE EVER LEARN?

WHEN WILL WE EVER LEARN?

WHERE HAVE ALL THE PEOPLE GONE?

LONG TIME PASSING.

WHERE HAVE ALL THE PEOPLE GONE?

LONG TIME AGO.

WHERE HAVE ALL THE PEOPLE GONE?

GONE TO PALAEOONTOLOGY EVERY ONE

NOW WE CAN ALWAYS LEARN,

NOW WE CAN ALL LEARN.

Francis Thackeray

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Reminder:

Deadline for contributions for the next issue of PAL NEWS is 15th May 1997 (Preferably e-mail, otherwise on disk. We are using Wordperfect 6.1 (Ed)).