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James Kitching retires ?

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EDITORIAL

Mike Raath has been Honorary Editor of PAL NEWS/PAL NUUS for almost as many years as the PSSA has existed. Being editor may have seemed a thankless task, but a motion of thanks was in fact extended to him during the BGM of the Sixth Biennial Conference of the PSSA, held at Golden Gate in September. The minutes of that meeting record our thanks for posterity.

Knowing how much time and effort must have gone into the compilation of each issue of the newsletter over the last twelve years, one would like to do a little more than simply pass a motion of thanks. What should one do? The Executive Committee scratched their temporal bones and looked closely at the Constitution for guidance. Unfortunately, despite the detailed revision of that Document (revised mainly by Mike Raath himself), no mention was made of the manner in which one should thank an Honorary Editor who had slaved away for so many years, perhaps under the impression that it was all a Thankless Task.

What then should be given as a token of appreciation to the outgoing Honorary Editor? Members of the Executive Committee scratched their temporal bones again, and with a bit of thought came up with an idea that an outgoing Honorary Editor should be presented subsamples of the Gondwanaland Sediments. This has to be one of the greatest honours that the PSSA can possibly give, even if it isn't quite the same kettle of fish as Honorary Membership.

Members may remember (if they scratch their temporal bones) that the Jar of Gondwanaland Sediments constitutes the Staff of Office held by successive Presidents of the Society. The Jar was presented to James Kitching on the occasion of the PSSA's meeting at Graaff-Reinet, the small Karoo town which has been declared capital of Gondwanaland (the Mayor retains the scroll declaring it as such). The Jar has sediment samples from Africa, South America, Australia, India, the Falklands Islands, and now also Madagascar, thanks to a donation from Johan Looek. The Jar has recently been passed on to our new President, Jurie van den Heever, whose first duty was to subsample the sediments and to reunite them in a smaller jar, to be presented to the outgoing Honorary Editor for his outstanding contributions to the PSSA, and as a substantial reminder that his effort over the years never was a Thankless Task.

We thank Mike Raath now, once again, for all that he has done as Honorary Editor.

*

In the last issue of PAL NEWS/PAL NUUS, there appeared an advertisement for the position of Honorary Editor. It read as follows: "Wanted, One editor for PAL NEWS/ PAL NUUS. Experience not essential but an ability to persuade palaeontologists to put pen to paper, preferably before deadlines, would be desirable. Must be able to keep printing costs down and standards up". Prospective applicants were requested to write to the Honorary Secretary. The latter did not receive many responses. In fact he did not receive any, and the need for a new editor still stands. What you have in the interim is an Interim Editor (Francis Thackeray) and a Co-editor (Anusuya Chinsamy).

It will be a Tough Task to follow in Mike Raath's footsteps. Until such time that the PSSA has an Honorary Editor again, please be prepared to accept the newsletter as it comes, but above all, please be prepared to contribute to it. Apart from serving to distribute news, the newsletter can be a useful forum for discussion of recent publications. Moreover, it can serve to air suggestions concerning the PSSA (grievances, if any; compliments, if any). The place for such matters would be the new column called Palaver, from the word *palaver*, meaning "A talk, a parley, a discussion", or (as a verb) "to jaw", as defined by the O.E.D.

To all Members of the PSSA, we wish you everything of the best for the year that lies ahead. Thanks for your contributions this year. We look forward to more in the one that lies ahead.

Francis Thackeray
Interim Editor

Anusuya Chinsamy
Co-Editor

THE PSSA CONFERENCE AT GOLDEN GATE

In September this year, the PSSA held its Sixth Biennial Conference at Golden Gate in the Eastern Orange Free State. Thanks largely to the efforts of Gideon Groenewald, Johan Welman and James Kitching, the conference and excursions were highly successful. Our thanks extend to them all. Thanks too to the warden and managers at the Highlands National Park, for their generous use of facilities and their warm hospitality. Thanks are extended also to the Director and staff of the National Museum in Bloemfontein; in many ways they contributed to the success of the conference. And we thank Sanlam for again supporting the PSSA.

A booklet of abstracts of papers presented at the conference was prepared in advance. With the generous approval of Dr Gerrie De Graaff of the National Parks Board, papers presented at the Golden Gate conference have been submitted for publication in Koedoe.

The excursion guide prepared by Gideon Groenewald and James Kitching was certainly useful during the outings to Bramleyshoek and the Oliviershoek Pass, and the guide will continue to be valuable for future reference. For those who did not attend the conference, a limited number of copies of this guide are available from Johan Welman at the National Museum in Bloemfontein.

A GLIMPSE AT SOUTH AFRICAN PALAEOLOGY

Presidential Address presented by Prof. James Kitching at the Sixth Biennial Meeting of the PSSA at Golden Gate on September 7, 1990.

World-wide a few men and women, indeed a mere few scattered among millions in this civilised world, devote their lives to the collection and study of fossils. A large number take a mere casual interest in the results of these studies, but the majority have never heard of fossils or ask indifferently "Why should anyone waste his time on such a useless science?"

Over the years while in the field I was asked on a number of occasions "Man, why do you walk and clamber your legs off, looking for things you have not lost?" On one occasion I came to a farm and explained to the owner what I was looking for. I was told straight to my face "This is utter nonsense. How could bone get into rocks?" In the first instance I could immediately explain my absorbing interest in the animals that roamed the earth in the very distant past, while in the second I was fortunate enough to have with me a block of Karoo matrix with a jaw in it, showing a row of well preserved teeth, and my day was made.

The ignorance I have illustrated above can probably be overcome by popular and informative publications and lectures, although to the few practising South African palaeontologists this will mean making inroads into time that could be spent on scientific research - but isn't it worth while trying?

South African palaeontology has come a long way since the discoveries of Andrew Geddes Bain in 1838 and the first descriptions of fossil Reptilia of South Africa by Sir Richard Owen in 1876, to be followed by those of H.G. Seeley, Huxley, and Lydekker; and from 1897 to 1950 by Dr Robert Broom, whose work here in South Africa looms large over so much that has been discovered. In the case of Broom, one thinks especially of his work on mammal-like reptiles and his outstanding contributions to our knowledge of the South African australopithecines.

Broom described his research on the Karoo vertebrates in an almost unbelievable number of 280 publications, including his 1932 volume entitled "Mammal-like reptiles of South Africa and the origin of mammals." The study of Karoo reptiles, especially the therapsids, eventually became an international endeavour when specialised workers in this field increased in numbers at major institutions on every continent. Among these specialists are D.M.S. Watson, F.R. Parrington, S.H. Haughton, L.D. Boonstra, E.C. van Hoepen, F. von Huene, F. Broili and J. Schroder. A.S. Romer and others also contributed substantially to our knowledge of the Karoo vertebrates.

Up to this point, I have mentioned only the names of qualified palaeontologists, but let us not forget the amateurs or fossil hunters. Here the following names immediately come to mind: A.G. Bain, T.Bain, A.C. ("Gogga") Brown, A.W. Higgins, W.G. Atherstone, A.W. Putterill, J.H. Waits, W. van der Byl, C.J.M. Kitching, S.H. Rubidge, and R. Oosthuizen.

All these and others have contributed to our knowledge of Karoo strata and their fossil contents. If exception must be made, the name of S.H. Rubidge stands supreme among the South African "amateurs". It was this man who pursued a hobby for the pure love of preserving his own Karoo reptile finds and those he obtained from people who brought specimens to him. In 1965, S.H. Haughton wrote as follows: "Wherever palaeontologists interested in fossils from the strata of the Karoo system discuss the systematics and evolutionary importance of Permian and Triassic vertebrates, they perforce have to consider the facts that have been revealed by studies of the hundreds of specimens forming what is known as the "Rubidge Collection".

With the passing of the older generations of palaeontologists it is most encouraging to note that the few South African palaeontologists have been holding their own and that there has been a slow but steady output of publications on various morphological, taxonomic and other aspects of Karoo vertebrates, as well as to a lesser extent on the lithostratigraphy and biostratigraphy of the Karoo sequence, while workers on the dolomitic cave deposits have contributed greatly to our knowledge of these deposits and their mammalian fossil content.

Records of palaeontological holdings, worldwide, now show that the largest collections of Karoo vertebrates are housed in South African institutions. When one considers also the large collections of fossil invertebrates, plants and mammals at South African museums and universities, one immediately asks "Where is the manpower and finance to manage these collections, quite apart from future fieldwork?" It is obvious that more palaeontologists are required, and rarities such as curators are sorely needed.

When it comes to finance it is common knowledge that very little provision is made by universities and other institutions for the teaching of palaeontology except as a subsidiary adjunct to geology and zoology. From the private sector there has been little financial assistance. But it is not only here in South Africa that palaeontology is a stepchild. If we turn to what is happening at the Natural History Museum in London, formerly British Museum (Natural History), we hear bad news that some 60 palaeontological posts will become defunct by 1992 or 1993, all this being caused externally by lack of government funding and internally by the

failure to recognise the fundamental importance of collection-based research. We can but hope and trust that the protest and appeals we are asked to make will succeed and will make palaeontologists aware of this and any other threats that have not come to the fore as yet. Now to the present conference. On going through the present list of papers and posters,, it is indeed pleasing to note that, as at past conferences, there are once again a large variety of presentations reflecting the interests of palaeontologists in this country. Most encouraging also is the knowledge that the majority of papers and posters will be presented by the younger generation of palaeontologists and prospective palaeontologists. I have no doubt that your presentations will give us all food for thought. All strength to you for the future.

We are privileged to have our conference here at the Golden Gate National Park with its beautiful natural surroundings, and also to realise that we are in the land of the "chickens", namely the dinosaurs and to a lesser extent that of the crocodilomorphs, whose ancestors can be retraced well back to the thecodonts and archosaurs of the Beaufort Group. An advanced sincere "thank you" from all of us to the National Parks Board as well as to our most energetic organisers - Gideon Groenewald and Johann Welman.

As outgoing President of the PSSA, and a man on the verge of retirement, my sincere good wishes go to one and all here present - especially to the younger generation of palaeontologists who have become head of institutions, or heads of sections within museums. May palaeontology, through your guidance and endeavours, go from strength to strength here in South Africa with its vast palaeontological resources.

James William Kitching
7 September 1990

NEW HONORARY MEMBERS OF THE PSSA

At the PSSA BGM held at Golden Gate in September, Dr H.B.S. Cooke and Roy Oosthuizen were elected Honorary Members. The Constitution of the PSSA defines Honorary Membership as the highest honour that the PSSA can bestow on any Member. We congratulate both Basil Cooke and Roy Oosthuizen, and wish them everything of the best in the years that lie ahead. - Eds.

ROY OOSTHUIZEN: NEW HONORARY MEMBER

Roy Don-Frederick Oosthuizen, of Zwartskraal near Klaarstroom in the Karoo, is a retired farmer to his neighbours but to his wide circle of friends in the scientific world he is a painstaking collector and student of fossils and a sharp-eyed field geologist. Roy stumbled onto palaeontology when told by learned men that the Eccra rocks surrounding Zwartskraal were barren of fossils. With time on his hands during a severe drought, he discovered invertebrates, vertebrates and plants in the Eccra and in time built up an excellent collection of fossils from Cretaceous and Tertiary beds. These fossils, all carefully labelled, are on display in the Zwartskraal Museum.

Roy was more or less discovered by the palaeontological world in 1973, and since that year his home and museum has seen a constant stream of palaeontologists, geologists and sight-seers from Southern Africa and abroad. He also believed in sharing his knowledge with others and published a number of papers either as author or co-author. Roy's discovery of Karoo reptiles well below the base of the *Tapinocephalus* zone has attracted considerable interest.

Johan Look.

Roy Oosthuizen writes...

I wish to thank all Members of the Palaeontological Society for the great honour bestowed on me by electing me an Honorary Member of the Society. Needless to say it came as a pleasant surprise.

I also wish to thank all Members who so very kindly offered their help, and who shared their knowledge with me. Especially appreciated were the very fruitful discussions I had with Members from time to time. Without your help I would never have been able to have achieved what I did.

I found great pleasure in my studies despite frustrating moments, especially in the initial stages of my work.

My very best wishes to you and all.
Yours sincerely

Roy Oosthuizen

Dr H.B.S. COOKE: NEW HONORARY MEMBER

Herbert Basil Sutton Cooke was born in Johannesburg in 1915 and received his school and early education there. He studied at Cambridge University and graduated with honours in geology in 1936, after which he returned to South Africa to become a field geologist to one of the large mining companies. During this period he developed an interest in the little-studied surface deposits and the stone implements and fossils found in them and was encouraged by the Director of the government Bureau of Archaeology (later Archaeological Survey), Prof. C. van Riet Lowe. In 1938 he was invited to take a junior teaching post in geology at the University of the Witwatersrand and was able to work closely with the Archaeological Survey. He mapped the Sterkfontein deposit and established valuable contact with Dr. Robert Broom at the Transvaal Museum, Pretoria. In 1940 he received an M.Sc. degree from the University of the Witwatersrand, his thesis being a study of the Pleistocene geology of Southern Africa that included the first general correlation of events in this region.

During the Second World War, while serving in the Air Force as an observer and forecaster in North Africa and Italy, he was able to extend these studies in his spare time and on his return he prepared four monographic studies on mammals and was awarded the D.Sc. degree in 1947; he also became a Fellow of the Royal Society of South Africa. In 1943 he had married Dorette Hughes, also a South African, and they subsequently had two sons, Christopher (1946) and Patrick (1951). He resigned his post at the University to join the University of California African Expedition and in 1947-1948 directed their geological work in Egypt, Sudan, East Africa and Mozambique. He then worked on his own account as a consulting geologist but continued his research work and publications and in 1953 returned to a senior post at the University of the Witwatersrand. Three years later he received an award from the Royal Society and Nuffield Foundation, enabling him to spend six months in England but soon after his return was invited for the academic year 1957-58 to the University of California, Berkeley, where collections of fossil mammals from Africa were studied and described. He was honoured by the Geological Society by being invited to deliver the fifth Alex L. du Toit Memorial Lecture in 1957, in which he made a major attack on the then-current climatic framework for the African Quaternary, a view supported by R. F. Flint so that the pluvial hypothesis crumbled under the combined assault.

Basil Cooke was much concerned with adult education and he became well known on the radio, as a lecturer, as a writer of articles in magazines and the press. His interest included museum display and he designed and set up the whole of the science exhibit for the government pavilion at the central Africa Rhodes Centenary exhibition, as well

as planning the geological museum in the Johannesburg library. He was instrumental in turning the *South African Journal of Science* into a monthly, instead of an annual, publications and its editor for ten years. For three years he was chairman of the Bernard Price Institute for Palaeontological Research.

In 1961, Basil Cooke and his family moved to Canada where he took up a position in the Department of Geology at Dalhousie University and from 1963 to 1967 was also Dean of the Faculty of Arts and Science. He was awarded the Canadian Centennial Medal for his contributions to education. In 1967 he was able to resume his researches in Africa concerned with fossil mammals and with their use in establishing a sound time framework for deposits containing the stone tools and fossil remains of early man. He collaborated with a number of expeditions, mainly in East Africa and Ethiopia, in association with such well known figures as Louis and Mary Leakey, Richard Leakey, Clark Howell, Yves Coppes, Brian Paterson and Don Johanson. In 1970 he was able to suggest that on the basis of faunal evidence from East Africa, the Sterkfontein and Makapansgat breccias ought to be about twice as old as had hitherto been thought, possibly "in the vicinity of 2.5 to 3.0 million years old". The pigs proved particularly useful for correlation and relative dating and in an unfortunate controversy regarding some radiometric dates, the suid data turned out to be right! In 1978 he was a joint editor for Vincent Maglio, of a major work on the evolution of African mammals.

He worked with graduate students in studies of glaciation in Nova Scotia and with the interpretation of the climatic and sedimentological history of the offshore area. He was appointed to several international groups concerned with problems of correlations and dating for the past few million years and was involved in field studies in Australia, the United States, Russia, France, Spain, Italy, India and China. He also undertook a palaeomagnetic project in Hungary and promoted the establishment of an oxygen isotope laboratory at Dalhousie University. He has been an invited speaker at many institutions in North America and elsewhere and he was honoured in 1981 by becoming the second recipient of the Dalhousie Alumni "Award for Teaching Excellence" and also received an honorary doctoral degree from Dalhousie. He retired in August, 1981, and he and his wife live in Vancouver area, where he is working part-time as a geological consultant and endeavouring to continue his research and writing.

A REMARKABLE "VISITORS BOOK" IN STONE AT BARKLY WEST

Next time you drive through Barkly West in the northern Cape, you might consider stopping for an hour to look through the collections in an old museum in the town. One of the objects on display is a remarkable stone palette which served as a visitor's book in previous decades (Fig. 1). Basil Cooke was one of several distinguished visitor's who signed the stone. We have asked him to comment since he knew several of the palaeontologists and geologists who also signed that palette. -Eds.

Comments on the Barkly West palette

H.B.S. Cooke

The mining commissioner at Barkly West set up a remarkable museum displaying archaeological and other material, and he had the idea of the stone palette to act as a distinguished visitor's book. I think he was P.E. Retief. The names and dates shown on the stone palette have been rearranged here as far as possible into date order. On the same line as the date and name are the annotations that appear on the stone. Clearly those describing the profession etc. of the individual were added at a later date, probably by the mining commissioner. Some of the annotations are inaccurate and I have commented on them in parenthesis.

- | | |
|---------|--|
| 2/9/44 | B.D. Malan. Geologist and archaeologist. University of the Witwatersrand. |
| 18/9/44 | C.F. Stallard. Minister of Mines, 1939-1946. |
| 18/9/44 | C. van Riet Lowe. Director of the Archaeological Bureau, Johannesburg. |
| 20/9/44 | D.R. MacFarlane. Lecturer. (A keen amateur archaeologist, I think from East London). |
| 16/6/45 | J. Muller. Secretary for Mines. |
| 25/2/46 | Alex L. du Toit. Geologist. (Du Toit was of course one of the greatest geologists in South Africa, world famous for his support of continental drift). |
| 25/2/46 | H.B.S. Cooke. Palaeontologist. (I visited the site with Alex du Toit when I was preparing a paper on the Vaal River gravels and sought his advice. I am a geologist rather than a palaeontologist). |
| 10/4/46 | A.J. Friedgut. "Forum". (I think there was a magazine of that name). |
| 6/5/46 | F.J. du Toit. Secretary of the Department of Commerce and Industry. |
| 22/5/46 | Lester C. King. Geologist. (Professor of geology at the University of Natal and pre-eminent for his work on geomorphology, first in South Africa and then globally). |
| 8/6/46 | H.J. Abrahams. "Forum" |
| 8/8/46 | M.I. Hamilton. Consulting geologist. |
| 26/8/46 | A.M. Conroy. Minister of Labour |
| 4/10/46 | H.S. Harger. Consulting geologist. |
| 1/3/47 | Robert Dunnet. B.B.C. (A celebrated B.B.C. broadcaster). |
| 8/9/47 | Raymond Dart. Professor of Anatomy, University of the Witwatersrand. |
| 8/9/47 | George B. Barbour. Geologist, Cincinnati, USA. (Celebrated for his work at Chou Kou Tien in China, with Teilhard de Chardin, Wu Pei and Davidson Black. He came to South Africa on an extended visit to look at cave |

- breccias and geomorphology. I took him on a long trip. The Darts took him to Canteenkop).
- 23/9/47 V.H. Osborn. Undersecretary for mines.
- 4/10/47 E. Foullois. Medical Inspector.
- 30/1/48 Frank E. Peabody. Palaeontologist, University of California. (Frank Peabody was with the University of California African Expedition, led by Charles Camp, and he excavated extensively at Taung, Bolt's Farm and Gladysvale).
- 30/1/48 L.W. Luttrell, E. Creswell Thompson of M.P.C., David MacDonald of M.G.M., and Tom Stewart of London. (These four people probably came with Frank Peabody to make news films).
- 13/2/48 G. Stokes. Barkly West.
- 12/3/48 Olga Klos de Revartz. New York.
- 23/3/48 Eric Rosenthal. Journalist, Cape Town. (A celebrated journalist, writer and broadcaster).
- 23/3/48 L.H. Brailey.
- 14/7/48 R.C. Elliott. President, Northern Cape Development Association.
- 14/7/48 W. Campbell. Washington D.C.
- 14/7/48 R.H. Baker. Pretoria
- 15/7/48 J. Nephgen. L.U.K. Kaapstad.
- 15/7/48 J. Jordan Botha. Britstown.
- 3/8/48 George Barrell. Senator, Barkly West.
- 11/8/48 Arnold Waters. Johannesburg. (Consulting geologist).
- 26/10/48 Alex Bryce. Gainsborough Pictures.
- 26/10/48 Victor Lynden-Haynes. Gaumont British Africa. Probably making documentary films.
- 10/11/48 M.D.W. Jeffreys. University of the Witwatersrand. (An enthusiastic amateur archaeologist and teacher of social anthropology).
- 9/12/48 I.L. Myburgh. Inspector of mines.
- 18/12/48 E. Andries. Sydney, Australia.
- 18/12/48 Madeleine Nicholson. Sydney, Australia.
- 18/12/48 E.G. Gamble. Barkly West 1922-47.
- 12/2/49 D.H. van Zyl. Senator.
- 6/4/49 G. Senbring. F.R.G.S., Java.
- 28/4/49 G.E.N. Ross.
- 6/7/49 Giles de Kock. President of the S.A. Association for the Advancement of Science.
- 6/7/49 I.D. MacCrone. Witwatersrand. (A former principal of the University of the Witwatersrand and amateur archaeologist).
- 25/9/49 W.P. de Kock. Consulting geologist.
- 25/9/49 H.A. Morris
- 19/10/49 R. Calen. D.T.C., London.
- 2/11/49 H. Spencer Jones. Astronomer Royal.
- 25/11/49 Dirk Mostert
- 25/8/51 P. Teilhard de Chardin. (Father Teilhard was famous for his work at Chou Kou Tien and for his views on human evolution, which sometimes brought him into conflict with Rome. He spent some time in South Africa examining cave breccias).
- 12/8/57 J.H. Power. Kimberley Museum. (Mr Power was one of the first collectors of stone tools at Canteenkop and his collections are in the McGregor Museum in Kimberley, of which he became Director in succession to Miss Maria Wilman).
- 12/8/57 Richard Foster Flint. Geologist, Yale University. (Prof. Flint was a geologist from Yale University and was widely regarded as the expert on Pleistocene geology. He was commissioned by the Wenner Gren Foundation to undertake a study of the Plio-Pleistocene sites in East Africa and southern Africa, and spent many months visiting. I took him to many sites, including Taung. Mr Power took him to Canteenkop).

Undated: C.B. Slawson University of Michigan, Ann Arbor, USA
 D. van Eysen
 Harry Watt, London
 P.E. Retief, Port Elizabeth. (I suspect that this is the Retief who was the mining commissioner at Barkly West and who set up the stone palette as a "visitor's book". He went to Port Elizabeth and I think he became director or curator at the P.E. Museum).



Fig. 1 Photograph of the stone "Visitor's Book" at Barkly West.

BPI NEWS

Anusuya Chinsamy

On behalf of the BPI staff and students I would like to congratulate the organisers of the Golden Gate PSSA conference. It was a tremendous success.

Looking back on 1990, I am astounded by the number of changes that have occurred. The initial few months were full of questions. What's going to happen to the BPI? Is there going to be another Director? Such questions were silenced in May. The BPI would survive after all! Bruce Rubidge was appointed as Director of the Institute. Here's to Bruce - may he have the strength and tolerance to endure the trials and tribulations of Directorship! At last, dear Prof. Kitching is able to bow out as Acting Director and he can put aside all administrative chores!

There have also been several other changes. Besides Prof. Kitching's retirement, two other staff members also retired - Daniel Motlatlhegi and Mrs Haworth, who served the BPI for 24 and 16 years respectively. BPI now boasts a new secretary, Pat Weyks; a new technician; and ol' me as lecturer.

The student turnover at the BPI has been rather high this year - Marion Bamford, Saskia Waters, Ian McKay and Francois Durand all graduated with PhD degrees, and Patrick Bender received his MSc degree. Congratulations to them all. The four Honours students (Liz, Marion, John and Grigor) are on the verge of completing their Honours projects.

Next year, Marion Bamford will still be at the BPI, doing post doctorate work on fossil wood. Heidi will be completing her MSc on the dicynodonts Eumydops and Pristerodon during 1991.

As far as staff research is concerned, Bruce Rubidge continues his work on early therapsids. Chris Gow is looking at advanced mammal-like reptiles and the ancestry of mammals. Dick Rayner is doing a review of the Glossopteris flora and is looking at relationships of plants and animals from the Beaufort Group. James Kitching has been on several rewarding field excursions. I will be continuing my work on tissue structure of fossil and recent bone. Next year I shall be going to Norway to attend a conference on Mesozoic terrestrial fauna.

BPI staff and students convey their best wishes to our friends and colleagues for the New Year.



Dr. Alun Hughes, Mr. Gordon Peppercorn, and the man of the moment, Prof. James Kitching, on the occasion of James' "retirement" party on 26 October.



Prof. Kitching with Dr. & Mrs. Gow

Prof. James Kitching's retirement party: Anusuya Chinsamy

On October 26th, a retirement party was held at the University of the Witwatersrand, in honour of Professor James Kitching. The function was well attended and brought together a large number of palaeontologists from around the country. Although James Kitching has officially "retired", we know he will never really retire from palaeontology! To most of us he has been a mentor and teacher. He is a man highly respected and admired by his colleagues and students around the world. To go into the milestones of his career we would need several editions of Pal News. His has indeed been a lengthy and most fruitful career. We wish him well and hope he will heed the call of the mountains of the Karoo!

The following is a poem written by Dr Mike Raath, on the occasion of Prof. Kitching's retirement, and sums up how most of us feel:

JWK is "A" for AWAY! (for Oom James, on the occasion of his official "retirement")

Oom James has no thought of retirement-
It's all just a ploy, just a trick;
He has grabbed at this formal retirement
To shed all the bumf, double quick!

No more all the hardship and hassles,
No fights with Committees and Deans,
No students who spurn gowns and tassels
And rock up at grad clad in jeans!

For him it's away! to the mountain!
To the plains of the dry, dusty west;
The seconds he's already countin'
Till he does what he's always loved best.

He will race to the distant horizon,
And he'll rig up his tent in the lee
Of the best bloody tree you've set eyes on.
And boil up his kettle for tea.

Then he'll gallop in search of therapsids
(And find a whole bunch in one day!).
Which Rubidge or some other chap said
Would never be found there! No way!

That's our James, on the eve of his pension
When others just head for a nap-
He'll be adding another dimension
And plenty more pins to his map.

One day, when spacemen have landed
On Mars, or some other far shore,
They'll note, as they turn empty-handed,
THAT KITCHING HAS BEEN HERE BEFORE!

News from Gillian King - South African Museum

I recently attended two conferences in the UK. They were very different meetings held in very different places - the spacious leafy new town of Milton Keynes contrasted (not as unpleasantly as I would have imagined) with the dreaming spires of medieval Oxford. Interestingly, the subject matter at Oxford was the more trendy and, I suppose, newsworthy, whereas MK was host to a much more down to earth and orthodox meeting.

The 38th Symposium of Vertebrate Palaeontology and Comparative Anatomy was held at the Department of Earth Science of the Open University at Milton Keynes, September 17 - 21, 1990. This is a meeting patronized mostly by British V.P. people, but there is always a welcome scattering of scientists from continental Europe and the Rest of the World. Papers ranged from Devonian fish to Eocene mammals; and taxonomy to biomechanics. Several contributions related to exciting new finds of this or that, so let's hope that there will be paleontologists in the future to capitalize on them - which may not be the case if many institutions go the way of BM(NH) - sorry, The Natural History Museum. By now, almost everyone must be familiar with the staff cuts and change of philosophy introduced by the Museum's powers-that-be. Since BM palaeontologists have always been strongly represented at the VPCA meeting, it seemed appropriate that one slot was given over to the BM issue, and What Can Be Done About It. The answer was actually quite depressing, since it seems that there is little room for manoeuvring at this stage. One could still write to MP's, Museum Trustees, etc., and indeed, the Meeting formed a statement to be released to interested media, but there seems to be a distinct impression now that it's all over, bar the shouting. Neil Chalmers, the Director of the BM, is apparently down on paper as saying that even if there were not financial constraints, he would still institute the planned changes. This is obviously a matter on which reasonable people may disagree, as my college principal used to say.

Apart from this rather depressing session, it was a very enjoyable meeting. Well organized, with varied and interesting contributions.

Oxford was the venue for the meeting of participants of UNESCO's International Geological Correlation Programmes 216 and 303 (25-27 September 1990). The title of the meeting was Global Biological Events. It was broken up into chronological sessions addressing various biological events in earth's history and all the big names were there - Sepkoski, Valentine, Magaritz, Jablonski, Hallam, to name just a few I'd heard of. But in a triumph of egalitarianism every speaker received 15 minutes maximum, including questions. Since we didn't know this before the conference started, it made for some interesting presentations on the first day.

I found a lot of material a re-hash of material already well documented in the literature, which was a disappointment, but there were reports on new studies also - particularly it seemed on the last day when stratigraphic sections loomed large in most of the talks. Papers were a mixture of fairly global studies, such as tetrapod extinctions, and detailed stratigraphic studies of a much more circumscribed nature, for example, the stable isotope record of Palaeocene planktonic forams. So there was really something for everyone. Abstracts were made available (I have a set if anyone is interested) and some of the contributions will be published in Historical Biology.

News from Roger Smith, South African Museum, P.O. Box 61, Cape Town 8000

In July the Geocongress '90 field trip to Sutherland, Fraserburg and Beaufort West was nearly washed away. Freezing rain and snow made the outcrops look pretty miserable and caused the rivers to come down in flood. The highlight of the trip was when Bruce Rubidge volunteered to wade across a swollen river in his tartan underpants - what a brave man! Despite the inclement weather the 15 delegates, including 3 from overseas, were well pleased with the excursion.

Later in July I was back in the Karoo with Mike Cluver and Gillian King and a party of Friends of the Museum. Based at Meltonwold we spent two days looking for fossils on the farm and ended up with quite a good haul, including a dinocephalian skeleton with partial skull which we will have to excavate next year. The real value of such trips lies in the interest that it generates amongst members and the popularization of palaeontology in South Africa. In a similar vein during the June school holiday I assisted the Education department in a two day "Fossil Workshop" for children. This included one day of collecting in Langebaanweg phosphate mine, followed by a day of casting fossils in one of the Museum's classrooms. The response to this activity was overwhelming and it will surely be repeated in future.

In August/September I was fortunate enough to be able to attend the 13th International Sedimentological Congress in Nottingham, England. For the week preceding the conference I joined a field excursion to north-east England to look at the sediments and fossils of the Jurassic Cleveland Basin around Scarborough. Highlights of this trip, which was led by three geologists from the Geological survey, included superb cliff exposures of shallow marine terrestrial deposystems containing text-book examples of trace fossils, ammonites, belemnites, bivalves and brachiopods. One of the exposures that the leaders wanted me to see was a series of exhumed palaeomeanders similar to those I've described from the Beaufort.

The party of 18 included nearly as many nationalities from Denmark, Saudi Arabia, Spain, Italy, Egypt, Yugoslavia, Canada, Austria, USA and Netherlands. We were based in a very pleasant seaside hotel in Scarborough during the holiday season which added to the entertainment of this excellent field excursion.

The conference lasted for 5 days and consisted of 12 parallel sessions of 20 minute oral presentations as well as 2 poster sessions. 860 talks and 322 posters were presented. I restricted myself to symposia on fluvial sedimentology, trace fossils, aeolian sediments and palaeosols plus a few keynote addresses from the famous. My talk on alluvial palaeosols was well received and led to some constructive discussion of the factors that control maturity in alluvial soils.

Three days after getting back I was on the move again, up to Golden Gate for the palaeo conference. I was especially thrilled with the two day field trip to some of James's special places. It seems the Eliot still has a lot of research potential, I can't wait to get back.

The so-called "Gansfontein footprints" have been proclaimed a National Monument These are mainly dinocephalian tracks that are preserved on a crevasse splay sandstone surface near Fraserburg. Through the Geological Monuments Committee of the Geological Society I was asked to write a brochure to be distributed to visitors and also assisted them with the wording of an enamelled plaque to be erected on the site.

In February and March next year we (the A team) will be working on the Gansfontein surface to clean and preserve the footprints and do some detailed sedimentological/ichnological study of the "Homeb silts", relict 20 - 200,000 year old alluvium in the Kuiseb canyon near Gobabeb, Namibia. The aims are to learn more about fluvial deposition and climates in the recent past and to document arid zone alluvium as an analogue to the upper Karoo Elliot and Omingondi formations.

A few weeks ago I had the opportunity to spend a week on the north bank of the Orange River near Arrisdrift. This was the site of the Miocene mammals collected by Corvinus and Hendey back in 1978. New excavations have uncovered more bones as well as numerous silicified trees. Unfortunately the quarries are in production so that unless you risk your neck to run under the excavator bucket you cannot get the specimens out unbroken. Nevertheless there is much sedimentological and palaeontological work that can be done in these quarries if you can work under such conditions. I'll be back again next March.

Annelise has almost finished preparing "Butch" the pristerognathid skeleton that we brought back last year - he is looking very fine indeed !

News from Johann Welman, National Museum, Bloemfontein

During the first two weeks of November, James Kitching and Johan Welman undertook a fossil collecting trip to the Orange Free State. They were also joined by Steve Fourie for the first five days. Also with the able assistance of John Nyaphuli and Joel Mohoi, a large number of fossils were collected. Some of the more exciting fossils that were found include a lungfish in its burrow, skull and skeleton of a thecodont probably new for South Africa, a number of cynodont skulls and good skull material of rare amphibians from the *Cynognathus* Zone.

Congratulations to Patrick Bender on receiving his Masters degree in December. Patrick is already making good progress with his new studies of the Pleistocene fossils from the Cornelia beds.

The Palaeontology Department at the National Museum was recently joined by Dr. Gidea van der Linde, formerly involved with the parasitological research at the University of the Orange Free State. At present Gidea and Johann Welman are busy with a joint project on selected members of the South African fossil amphibians.

Johann Loock is down in the Cape on a six week fieldwork trip until the middle of December.

News from Willem Smuts, Geological Survey, Pretoria

I have recently returned from a three-month field trip in search of more peatlands in the southwesteren and western Cape, covering the area from Mosselbaai to Elandsbaai and from Cape Point to Koue Bokkeveld.

We are now frantically working on samples in the laboratory. Eventually, a South African peat map will be prepared. We shall report on peat resources and describe peat characteristics in this country.

Fossil Fuels was recently joined by a new geologist, Hanna Mazus, from Poland. She has a keen interest in spores and pollen, and has already started to work on some of our peats. I am sure that she will tell us about these soon.

I am busy trying to make some sense of certain tiny freshwater molluscs extracted from southern Cape peats.

News from Heidi Anderson, National Botanical Institute,
Private Bag X101, Pretoria 0001

We recently had a most interesting visitor - Dr Inna Dobrnskina. About a year ago we received a postcard from Israel saying "I have changed my life". The most recent correspondence was a telegramme saying "I'm coming". After John's second trip (in a week) to the airport (at 4.00 a.m. on 27.9.90), he found a rather weary Inna and her 13-year old son. She had finally managed to get an airfare from the Christian Institute in Jerusalem, and taken a loan for her son's ticket. While here she stayed chez John or Heidi.

Inna originally wrote to us from Russia in 1973 and since then has been very involved in the "Permo-Triassic Megaplant Genera of the World" project that John initiated. So while she was here much time was spent on updating that project. We also spent hours proofreading her own English translation from her Russian book "Triassic Floras of Eurasia" (to be published in Austria).

She had so many interesting details on her life in Moscow at the Geological Institute of the Academy of Sciences of the USSR that we asked her to give a talk. This she did on 31 October. It was entitled "Science in the USSR: The social perspective". She covered many topics - from basic shortages of paper to the secrecy of all maps while she did her fieldwork (such difficulties no longer prevail, thanks to Glasnost). Imagine her publication problems! I feel it was miraculous that she had managed to do scientific work and publish her books with so many obstacles. As a small example I'm including part of her talk which she gave at the National Botanical Institute in Pretoria.

On Censorship and Secrecy

(Extract from a lecture by Dr Inna Dobruskina who visited the National Botanical Institute in Pretoria recently).

"Photocopying is one of the simplest things in the National Botanical Institute in Pretoria. The Geological Institute in Moscow also has two xerox machines, but one of them is situated 50 kilometers from our Institute. This is because of insufficient space at the Institute.

"You have to receive special permission for photocopying anything. On one hand the Soviet authorities are afraid of the distribution of prohibited books and ideas; on the other they are afraid of the distribution of secret data.

"This is what happens should one want to make a photocopy. First, you come to a lady who is responsible for the xerox machine. You receive from her a special form on which you explain what you need to copy. If it is published material, you give the reference in full. If it is not published, you have to give explanations: what is it, and why you need it. Then you go to the Chief of your

laboratory for a signature to confirm that everything on the form is true. The third step - obtaining the signature of the Director of the Institute - can be very time-consuming. The next step is a visit to a special office, called "The First Department".

The Special Officer there must confirm that your material does not contain secret data; that it is not dangerous to copy; and that your action will not destroy the Soviet Union.

"Once you have obtained the three signatures, you return your form to the lady responsible for the xerox machine, and you ask her whether she has time to do the photocopying. You cannot use the machine yourself. Usually there is a queue, and once again you must wait. But very often new problems arise. For example, there may be a shortage of black powder for the machine, or a shortage of paper. Or worse - she says that the machine needs fixing and she tells you that she has been waiting three days for the specialist to come and fix it..."

James Kitching's large dinosaur

Kitching found a dinosaur
With great big blade-like teeth,
The missing super-carnivore
That trod Jurassic "heath".

We cannot say there'd been no hints -
It's good that James persisted -
A pelvis and tridactyl prints
Had shown they once existed.

Upon a sandstone slab were splayed
The fragments he first saw.
Once fully processed in the lab
were bits of snout and jaw

The burning question now arises:
Is it a coelurosaur
(much larger than *Syntarsus*)
Or just a modest megalosaur?

Chris Gow
January 1989

KAROO FOSSILS IN EUROPE?

Johann Welman, National Museum, Bloemfontein.

The therapsid fossil links between southern Africa and Russia are well known to palaeontologists. However, most of the sedimentary rocks of central and western Europe were deposited either in a marine setting or the vertebrate fossils found in continental deposits, consists mostly of amphibians or fish, sometimes with an extensive time range (e.g. Palaeoniscus) so that chrono-stratigraphical correlations with the Karoo is difficult.

It was therefore very interesting when Dieter Sues and Jürgen Boy reported in Nature at the beginning of 1988, on the discovery of a procynosuchid cynodont from central Europe. Sues found the incomplete lower jaw of Procynosuchus in a fissure filling quarry near the town Korbach in northern Hessen in Germany. Sues stated that the German specimen is all but identical with Procynosuchus delaharpeae found in the South African Dicynodon-Therapsid (Daptocephalus) Assemblage-zone. According to Sues, this form is also known from the Madumabisa Mudstones in Zambia. The presence of Procynosuchus points to an upper Permian age of the so-called Randkalk sediments of the lower Zechstein 1 in Germany.

Sues also mentions that the Zechstein marine sediments and the English equivalent, the Marl Slate, have in the past yielded forms such as Protosaurus (an archosauriform not yet found in South Africa), the gliding diapsid Coelurosauravus (also found in Madagascar) and the pareiasaur Parasaurus. In addition, the pareiasaur Elgia and dicynodonts of Daptocephalus age, have been collected from the Cuttie's Hillock Sandstone in Scotland. From Triassic sediments in the same Elgin region in Scotland, the material was found on which Walker based his 1961 redescriptions of Dasygnathus, a thecodont related to Erythrosuchus.

In a note on the Mesozoic fossils of Württemberg in southwest Germany, Rupert Wild mentions a number of fossil assemblages. One such assemblage, consisting of thousands of specimens, was discovered in 1977 near Kupferzell by an amateur palaeontologist. The Kupferzell sediments belongs to the upper Lettenkeuper/lettenkohle and has been dated as upper middle Triassic. Some of the animals that made up this assemblage are invertebrates like ostracods and bivalves, lungfish (toothplates and headshields of Ceratodus spp.) and large numbers of the plagiosaur amphibian, Plagiosternum. An important find at Kupferzell is that of the extremely large capitosaurid amphibian, Mastodonsaurus, in association with rauisuchid thecodont remains. Teeth of small cynodonts are also associated with this assemblage. The Kupferzell assemblage reminds one strongly of some of the animals

found in the Kannemeyeria-Diademodon (Cynognathus)
Assemblage-zone of South Africa.

Sues, H-D. & J. A. Boy (1988). A procynosuchid from
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Southwest Germany. Mesozoic Vertebrate Life 1, San
Diego, California.

DEFAMATION?

By Bob Connolly



"Sterkfontein skull proves, man related to ape,"—says Dr. Broom

Rand Daily Mail, 29 April 1947

News from Norton Hiller, Department of Geology, Rhodes University

This past year has been a particularly busy one for me, palaeontologically speaking. I was on sabbatical leave for the first six months of 1990 and the family and I spent from January to May in New Zealand. The primary reason for going there was to attend the 2nd International Brachiopod Congress which was held at the University of Otago, Dunedin, from 5-9 February, but I also took the opportunity to view some of New Zealand's famed scenery and to have a look at their legendary Tertiary brachiopod faunas.

The conference was a great success and personally I gained a lot from it. I was very pleased with the response to the poster that I presented on the southern African Recent brachiopod fauna and I would like to think that I have helped to put South Africa on the world brachiopod map. Certainly, I have received a number of requests for specimens and reprints from various parts of the world.

For the remainder of my time in New Zealand I was based at the University of Canterbury in Christchurch where I met up with another brachiopod worker whom I had known from Belfast days. He generously agreed to let me work with him on a little project on several species of late Eocene to late Miocene brachiopods from New Zealand and Australia. The preservation of the specimens was exquisite and in some cases even the delicate calcite ribbons of the brachidia were preserved.

This particular project was concerned with sorting out some of the taxonomic problems but there was plenty of scope for work on other aspects of the fauna. I wish I had had more time to get involved with palaeoecology etc. but I was grateful for the opportunity to gain experience on a group of brachiopods on which I would not otherwise have been able to work.

Apart from examining specimens in various museum and university collections, I was also able to get into the field to collect some more material for myself. The Kiwi Tertiary sequences are quite superb and much more complete than are the South African ones. There the invertebrate faunas seem to have been dominated by the brachiopods. Never before have I seen a conglomerate in which the "pebbles" were conjoined brachiopod shells! Since returning to Grahamstown my life seems to have been devoted to preparing new courses, teaching and marking. Partly, though, this has been a labour of love because I have finally managed to persuade my colleagues to allow me more time for the teaching of palaeontology.

Plans for the near future include a trip to Namibia to collect living inarticulate brachiopods, some of which are to be sent to Glasgow where Sir Alwyn Williams wishes

to study the secretory regime of the phosphatic shell. Over the next few months I hope to make progress writing up a number of projects that seem to have been hanging around for far too long.

News from Prof. Armand De Ricqlès, Paris

Armand has been working with Jack Horner from Montana, looking at the bone histology of Hadrosaurs. The results suggest very high growth rates for some species, lower rates for others, and even lower rates in some. He has also examined sections of Coelophysis. Apparently these are not unlike that of Syntarsus, but indicate higher growth rates with no evidence of lines of arrested growth.

Armand also mentioned that he recently attended a workshop on palaeohistology in Germany. However, he found that they were interested in recent archaeological studies on bone and bone pathology.

News from Hannes Theron, Geological Survey, P.O. Box 572, Bellville 7535.

The results of research on bedding plane assemblages of *Promissum pulchrum* have been published recently in *Palaeontology* (33, 3:577-594), and work on "Benthic communities in the South African Devonian" appeared in Volume III of *Devonian of the World*. Work on both topics continues and we hope to publish "follow-up" articles in the near future: one on conodonts and related fossils from the Cedarberg Formation, and another on the distribution and environmental relationships of the Devonian Bokkeveld Group fossil communities.

A brochure has been prepared on the Gansfontein palaeosurface. This site was selected for conservation by the Geological Sites Working Group (Western Cape Branch of the Geological Society of S.A.). The site conservation and preparation of this brochure was sponsored by SANLAM. The official opening of the site and the unveiling of a descriptive plaque took place on November 23, under the auspices of the Fraserburg Publicity and Tourism Society. It was attended by dignitaries from various interested bodies, including local municipalities, SANLAM, and the press. The chairman of the the Geological Sites Working Group, Prof. A.P.G. Sohnge, delivered a brief resume on the geology of the site, the importance of its conservation and the role of the Working Group who prepared the plaque.

Copies of the brochure on the Gansfontein site are available from the W.P. Branch of the Geological Society of South Africa, P.O. Box 572, Bellville 7535. It has been compiled by C.H. de Beer (Geological Survey of S.A.), Roger Smith (S.A. Museum) and edited by A.P.G. Sohnge (University of Stellenbosch). The Working Group

is to be congratulated on the production of this brochure, which will serve a very useful purpose in terms of education as well as conservation -Eds.

News from Arthur Cruickshank, Leicestershire

The 38th SVPCA was held at the Open University from the 17th - 21st September. About 96 people registered and a full programme of talks, displays and posters was arranged. A partial report has appeared in "Nature" (November 15 issue, 1990). The 39th SVPCA will be organized by Dr. Tom Kemp in Oxford, probably in the 3rd week of September 1991.

Mike Taylor, Dr. Phil Small (X-ray Dept., Nottingham Medical School) and I are putting together a first report on CAT-Scanning of the nasal region of Rhomaleosaurus, a Hettangian plesiosaur. David Brown (Newcastle Dental Hospital) and I are writing up the very complete (unusually complete?) Cryptoclidus skull from the Callovian of Petersborough, with some comments on the comparative morphology of jaw muscles in plesiosaurs. "New" undescribed Liassic plesiosaurs, from museums collections at both Oxford and Cambridge, are being dusted off for description in the period 1991-1992 - hopefully not too much "work" will get in the way of the palaeontology! We (Mike Taylor & I) hope that we will be able to do a proper cladistic analysis of the plesiosaurian families at the end of this exercise, with a more confident set of predictions following, for the presumed common ancestor of them all.

I am amused to see that I am singled out as one of the more reliable contributors. But it's good to see the palaeo-community of South Africa being so active (does that make it Aktuelle paleöologie?). Best Wishes.

News from Sara Kerr, Geology Dept., University of the Witwatersrand, P.O. Wits, Johannesburg 2000

I have recently rejoined the Geology Department at Wits where I have started an MSc. My thesis deals with the evolution of the Pretoria Saltpan (Zoutpan) which lies approximately 40 km north-west of Pretoria in a roughly circular depression, surrounded by a distinct crater lip. Because of its shape, this unique feature has attracted the attention of geologists for a long time. Up until quite recently, it was thought to have been a meteorite impact crater. Recent studies suggest however that it is most probably of volcanic origin, and more specifically, the result of a gaseous volcanic eruption.

The present playa lake was once a 200 metre deep crater lake which has subsequently filled with sedimentary deposits preserved *in situ*. These provide a unique record of the past climatic and geological history of the region. At present the crater is occupied by a brine

lake which has resulted in an accumulation of evaporitic soda and salt deposits. In the 1920's the saltpan was worked for soda and salt, and today the old trona and ash dumps are still visible on the outer rim of the crater. A borehole through these sediments was drilled and a core of approximately 170 meters has been recovered. On the basis of this, a multidisciplinary project was initiated. A number of aspects of the crater are being studied. The sedimentological and palynological history of the crater are two subjects that I will address in my MSc degree.

News from Francis Thackeray, Department of Palaeontology, Transvaal Museum, P.O. Box 413, Pretoria 0001

David Panagos and I are working at a new site near Sterkfontein and Swartkrans. It is called Plover's Lake, situated on a game-farm owned by Everard Read who has kindly given us permission to excavate on the property. We have found several baboon crania, the best preserved of which is quite probably *Papio hamadryas robinsoni* (otherwise known as *Papio robinsoni*). In addition, we have a nice mandible of the giant horse, *Equus capensis*, and a large alcelaphine, *Megalotragus priscus*. The latter two taxa are known to occur in deposits spanning the last two million years and are therefore not very useful for purposes of dating Plover's Lake. However, the occurrence of *Papio hamadryas robinsoni* is of particular interest since this baboon has always been associated with hominids at other Plio-Pleistocene sites. It is relatively abundant in Swartkrans Member 1 and is also present at Kromdraai, suggesting that we could be dealing with deposits somewhere between 1.5 and 2 million years old. Ungulate enamel samples with adhering matrix have been submitted for Electron Spin Resonance (ESR) analysis in the hope of obtaining some idea of the relative if not the absolute age of Plover's Lake, dated in relation to nearby sites in the Sterkfontein valley.

A series of public lectures was held at the Transvaal Museum in October and November. This proved to be very successful, and funds have been generated for a new auditorium at the museum. Lecturers included Bob Brain on hominid evolution, Bruce Rubidge on Káaroo reptiles, Alan Kemp on the evolution of hornbills, Wulf Haacke on reptiles (ancient and modern), Naas Rautenbach on mammalian evolution, Mike Johnson on creationism and evolution (a geologist's perspective), and Francis Thackeray on extinctions. The series ended with an "open evening", during which members of the public were given the opportunity to see original australopithecine specimens in the "Broom Room" (Mrs Ples being the star of the evening).

A project involving "Computed Tomography" of australopithecine teeth has begun. We are excited by the potential of the CT scanning technique, and are using it to quantify enamel thickness and structure in hominid

teeth in the Transvaal Museum collections. If things work out as we would like them to, we see this project on hominid teeth as possibly growing into an international, collaborative venture, to include the analysis of australopithecine specimens from East Africa as well as southern Africa. Ideally, a systematic study of enamel thickness and structure in all hominid teeth may help to address thorny taxonomic problems.

News from Colin MacRae, Geological Survey, Pretoria.

Eva Endrody is continuing the study of the Rydale Ecce group flora. This is revealing many interesting facts and posing many new questions. Eva is also busy formulating her reply to the palaeodeme concept and will spend most of this month on holiday in South America. Bon voyage!

Pascale Chesselet has recently completed her paper on the detailed structure, taxonomic status and functional interpretation of the *Eohostimella* fossils that occur in the Soom Shale, Cedarberg. She will be leaving us at the end of December. We all wish her well in her new research post at Roodeplaat Research Station.

Andre Keyser has completed the first draft of his revision of the small endothiodonts. The collecting of fossils from the dumps at Haasgat is proceeding well and he reports that he is finding many interesting fossils. Of great interest is the high proportion of primate material that has been recovered. Time to stop aping around on old mind dumps Andre! Iboyla Sopik is doing a lot of the skilled fine-scale preparation of this material and Magdel Gricius is going flat-out on the curation of our fossil collection.

Ian Brink is now off our official books, but will complete the final touches to Volume III partly in his spare time and on a contract basis. Pam Prowse is assisting with the illustrations and continuing with casting of fossils.

Colin MacRae is finalising the work on the No. 4 Seam project and intends to soon write up the palynology of the Whitehill Formation. Grigor Aitken has completed the nerve-racking final examinations and is now putting the final touches to his palynology project.

Barry Millstead has recently sampled borehole material from the New Vaal and Springfield Collieries. At the New Vaal site the coal seams extend under the Vaal River and clearly underlie the Vereeniging quarries that yielded part of the famous *Glossopteris* floras. The age of the Ecce Group was, in part, historically based on these floras and the palynological part, historically based on these floras and the palynological dating should reveal interesting results. Linda Karny now has two bullies

shunting her around trying to get their palynological preparations done. Under the circumstances she is doing very well.

Francois Durand will soon be "released", having served his time in the forces. We look forward to getting some high quality detailed morphology coming out in the near future.

With best wishes for a blessed Christmas and a new year filled with success from all of us GovPals.

PS - Latest news from the Creation Forum is that they held 4 super rallies during the year and stressed the high level of interest in their lectures. To quote from their letter

"At this seminar students (Bloemfontein University) specifically expressed great interest in the CREATION FORUM, pointing out that on our campuses and in our schools there is a desperate need for the material and services offered by this organisation."

They are now planning events for 1991 and would appreciate all help as well as invitations. Any offers? Their new address is P.O. Box 1170, Southdale 2135.

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Although it was originally intended that abstracts of these papers be published in PAL NEWS, costs of reproduction do not permit this. However, copies of the articles are available from authors, and reprints of some are available from the recently established PSSA reprint collection, housed at the Transvaal Museum.

PSSA Members are encouraged to send references (and if possible also reprints) of their recently published research articles to Francis Thackeray, Department of Palaeontology, Transvaal Museum, P.O. Box 413, Pretoria 0001.



PALAUVER

This column gets its name from the verb, palaver, "to discuss, to jaw" (O.E.D. definition); it is a discussion column in which anybody can chew on any subject, just as anybody can (if they dared) in Hyde Park Corner in London. (However, as noted in this and every other issue of PAL NEWS, views expressed in the newsletter are not necessarily those expressed by the editors of PAL NEWS or other Members of the PSSA.) In this issue, Eva Endrody gets her teeth into taxonomy.

On Palaeodemes and other matters E. Endrody

In this section of PAL NEWS, I would like to discuss the approach used by John and Heidi Anderson in their recent publication on palaeoflora (Anderson & Anderson 1989). I would welcome such a discussion because it could help me to understand their method of approach, which is not described in any of their co-authored volumes. I shall illustrate their approach with quotations from their 1989 publication.

When you think that the quotations take up a large part of PAL NEWS, and perhaps too much of your time to read them, think of the volume of the volume - 567 pages - and also of the rather complicated subject matter.

In advance, I have to mention the difficulty that prevents me, a taxonomist, to understand the Anderson's approach. There is nothing in the approach that may provide a constant or stable reference point for the evaluation of the "unimodal distribution of variation" (p. 564) in the palaeodeme.

"The palaeodeme is considered here to be the basic taxonomic unit" (p. 16) "in our interim taxonomy" (p. 6). One species may include several palaeodemes (e.g. pp 227, 376), and the morphological range of a palaeodeme may embrace more than one species (pp. 17, 24). In the latter case, when "a palaeodeme covers more than one defined taxon, the separated portions falling in the taxa concerned are referred to as schizodemes" (p. 564).

My first two questions are: (1). "What is a defined taxon in an interim taxonomy?" (2.) Are the taxa or the palaeodemes defined first?"

In their work we find that such palaeodemes may include more than one species (eg. pp 93, 374). However, we read in the Glossary that "species (are) morphologically definable units, made up of groups of individuals (populations)..." (p. 565), and that a palaeodeme (is) a single breeding population..." (p. 564).

The systematist needs explanation of the the order of ranks.

On page 16 we read that "The morphological limits of a species coincide with those of its reference palaeodeme". For example, the reference palaeodeme (RP) of *Taeniopteris anavolans* sp. nov. is a "schizodeme (core)" from Matatiele (p. 374). In the photographic catalogue this RP is illustrated under the name "*Taeniopteris anavolans/cetilocus, homerifolius*" (pp. 386-391), because three species are found in the core of the "complex palaeodeme" (see explanation of complex palaeodeme on page 17). There is a palaeodeme that includes specimens of only *Taeniopteris anavolans* (pp. 394-395), but this is not the reference palaeodeme.

Was the number of specimens the reason to select a schizodeme (core) to be the RP of *Taeniopteris anavolans* = *T. anavolans/cetilocus, homerifolius*? The number of specimens in the RP is 39, and in the palaeodeme that is illustrated under one binomen *T. anavolans* the number is 12 (p.374). When one thinks of the number of leaves in one tree, or even the number of leaves in a population, neither 39 nor 12 detached leaves would show the unimodal distribution of variation.

"Would the majority of extant foliage populations (sic) plot as unimodal curves?" is a very important question without answer (p. 16). There is then no equivalent pattern in the individual variation in the leaves of extant plant populations that may help the palaeodemologist to assume the position of fossil leaves in a mental picture of a unimodal curve.

Perhaps the most serious problem in the approach of "sorting of specimens from each assemblage into palaeodemes" (p. 16) is presented by the "unimodal distribution of variation" (p. 564). A variation in itself, and not in reference to some constant characters, is typical to each palaeodeme. On page 6 it is stated "Similar palaeodemes overlap to any and every degree".

What is similar in two or more variations? When palaeodemes overlap, in what sense is the palaeodeme a unit?

On page 16 it is said that "A palaeodeme may cover a particularly wide range of morphological variation or a distinctly narrow range; it may include but a single fragmentary specimen or a multitude of nearly complete specimens; it may be clearly distinct or difficult to separate from morphologically adjacent palaeodemes in the same assemblages". The variations are then variable in several respects.

What are the guiding principles of the method (not of the physical practice, such as specimens of an already delimited palaeodeme that are "curated together in adjacent trays" (p. 17) that determine the perception and and separation of variations ?

I would be grateful if the Andersons could give a step by step description of the method of their approach, and for answers to my questions.

E. Endrody

CONFERENCES

The Seventh PSSA conference will be held in 1992 at the Bernard Price Institute, University of the Witwatersrand. Enquiries: Dr Bruce Rubidge, BPI (Palaeontology), P.O. Wits, Johannesburg 2000.

An international conference on "Monument Grube Messel - Perspectives and relationships", will be held in Darmstadt, Germany, November 6 - 9, 1991. This conference is being advertised as providing "a forum for discussing various aspects of different bio- and taphocenoses in comparison with Messel". Papers will concentrate on two major aspects:

1. Biogeography, ecology and evolutionary history of vertebrates and vertebrate communities in the Eocene.
2. Taphonomy, preservation and diagenesis of fossils in shales throughout earth history.

If you are interested in attending this conference, write to International Messel Conference 1991, Hessisches Landesmuseum, Friedensplatz 1, D 6100 Darmstadt, Germany.

CLASSIFIEDS

(This does not concern taxonomy or security. This deals with advertisement, and very real appeals for help !)

MISSING TYPE: Have you come across the type specimen of Emydops microdon (catalogue number T.M. 269), which ought to be at the Transvaal Museum ? If so, please contact either Dr Francis Thackeray (Transvaal Museum, P.O. Box 413, Pretoria 0001) and/or Heidi Fourie (B.P.I. Palaeontology, P.O. Wits, Johannesburg 2050). Heidi is wanting to examine the specimen.

WANTED: FOSSIL WOOD. I'd like to get in contact with anyone who has worked on or who is working on South African fossil wood - all ages and all types! Phone or write to Marion Bamford, B.P.I. (Palaeontology), P.O. Wits, Johannesburg 2050. Tel 011 7163009.

WANTED: TURTLE AND TORTOISE FEMORA. Please contact Anusuya Chinsamy at the B.P.I. (Palaeontology), P.O. Wits, Johannesburg 2050.