

PAL NEWS NUUS

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Biannual Newsletter of the Palaeontological Society of Southern Africa.

Halfjaarlikse Nuusbrief van die Paleontologiese Vereniging van Suider-Afrika.

Kersgroete Christmas Greetings



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PAL NEWS is printed by the University of the
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Africa for its members.

Acting Editor: Prof. M.A. Raath, BPI (PALAEONTOLOGY)
University of the Witwatersrand,
Johannesburg.

EDITORIAL

WHAT HAS BECOME OF THE NEWSLETTER?

The last issue of the Newsletter went out in October 1980. Many of you must be wondering : "What's going on? Where are the Newsletters that we should have had?". Some of you might be aware of the trials and tribulations that have beset Jacques van Heerden in recent months; for those who don't know it, Jacques left the National Museum in December 1980 to take up a post in the Department of Zoology at the University of Fort Hare. (I'm sure all members will join in wishing Jacques and his family happiness and success in their move). This sort of move is, in itself, a major upheaval, but the real problem came in August when Jacques' new office was burgled. Part of the burglar's haul was the PSSA box file with a typewritten master copy of the current Pal News, together with all the supporting material.

(What on earth will he do with it, I wonder?!)
So, what you are reading now has had to be prepared from scratch. From now until the day this issue is printed and posted, I am placing a whole regiment of particularly evil and ferocious guard dogs around my office! Burglars please take note!

Staff at the BPI have agree to hold a watching brief over PSSA affairs until new office bearers can be elected. In the meantime all material for the Newsletter and all enquiries should be addressed to Mike Raath at the following address:

Bernard Price Institute (Palaeontology),
University of the Witwatersrand,
1 Jan Smuts Avenue,
Johannesburg.
2001

If you need to phone me, my number in Johannesburg is (011) 1716-3000.

The response to Jacques' circular in September calling for reports of activities from members, has been rather poor. Those reports

that were received are included in this issue of the Newsletter . Once this issue has been "put to bed" I have no material for the next number. I would like to send out the next Newsletter about the end of April 1982, and I appeal to members to ease my task by sending me material covering such things as:

- . A note on your own current research
- . Amusing or interesting anecdotes or stories
- . Cartoons (with a note as to the source)
- . News of forthcoming conferences/symposia
- . News of recent field trips/study trips
- . News of recent distinguished visitors to your labs
- . News of any job vacancies in your institution
- . Recent publications

Let me remind you that, although a transplanted "Colonial Rooinek" is temporarily holding the editorial reins, this Newsletter remains a bilingual vehicle. Material in Afrikaans will be welcomed.

That seems to be about all for now. It

remains for me to wish you all the Compliments of the Season (I'm still hoping that this will be posted before Christmas, but perhaps that is being too hopeful?.....)

Happy Christmas!

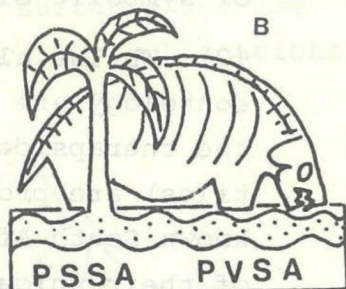
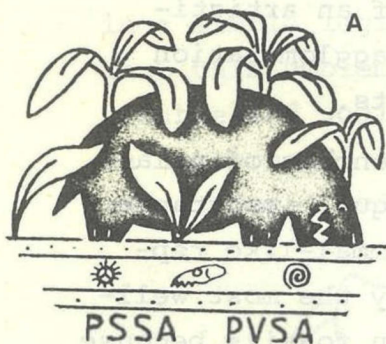
Mike Raath



SOCIETY EMBLEM COMPETITION

We have received two further entries in the competition for the Society's emblem:

1. Dr. Louis Scott (Institute for Environmental Sciences, University of the Orange Free State), who emphasises that the following are preliminary sketches only.



2. Juri van den Heever and Fred Grine
(South African Museum, Cape Town),
who include the following motivation:

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

(2) Whilst all branches of pala-
eontology are of equal importance
the therapsids (mammal-like rep-
tiles) are probably the most well-
known South African fossils because
of their unique evolutionary context.

(3) Amongst the therapsids,
Lystrosaurus occupies a central
position in as much as it is found
in the middle of the Beaufort sedi-
ments. Furthermore, Lystrosaurus
is not only abundant in South
Africa, but it is also represented

in the various elements of Gondwanaland. This genus thus serves as an excellent palaeogeographic link.

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



Please keep all competition entries, as we must pick a winner sooner or later. The only other entry that I know of so far is that by Dr. Ian Brink (Pal News 2(3): p.17, Oct 1980). If there are any others, please send them in with a covering note giving your motivation or explanation of the symbolism of your design. If you have previously submitted a design which has not yet been published, we must presume that it was a victim of The Burglary! In that case, please send in a copy.

The address is:

Pal News,
c/o BPI (Palaeontology),
University of the Witwatersrand,
1 Jan Smuts Avenue,
Johannesburg.
2001

You will recall that the closing date for the competition was originally 30 September 1980. This date has been overtaken by events and it has now been extended to 31 May 1982. This will give time for all designs and motivations to be assembled in time for the Conference in Pretoria in July,

at which time the winner will be chosen.

Those of you who are artistically inclined,

PLEASE!!

☆ ☆ ☆

SECOND PSSA-PVSA CONFERENCE: 1982

Response to our first questionnaire tends to be quite encouraging and it would appear that we can look forward to an exciting congress. There are signs of some significant overseas interest.

Some special requests for postponement of the congress into July - especially from overseas - resulted in a final decision for Monday 5th July to Friday 9th July 1982.

All those who will submit contributions are encouraged, where possible, to bring in some geological relevance and, moreover, also if possible, some economic relevance, while the congress is financially supported by the Department of Mineral and Energy Affairs. This will, of course, not be

difficult for palaeobotanists and micropalaeontologists, with a view to fossil fuels, but let it be borne in mind that uranium occurs in the Karoo. Contributions on Karoo biostratigraphy will, therefore, be very welcome.

Contributions are also encouraged to consider general problems, of interest to a majority, though contributions of more restricted interest are not being discouraged.

At this stage it can be mentioned that, in all likelihood, our congress will be attended by Professor L.P. Tatarinov, Professor of Palaeontology at the Lomonosov University, and Director of the Palaeontological Institute of the Academy of Sciences of the USSR. We hope this will encourage palaeontologists from other parts of the world to attend.

This circular is posted to everybody originally approached, irrespective of positive, negative or uncertain responses.

It is considered that some who responded negatively or who are still uncertain, may yet turn more positive, perhaps due to the shifting of the dates. Otherwise, those who will positively not attend, may yet like to be kept informed about our progress and activities.

With future circulars we shall negotiate specifically on matters of accommodation, transport, exact time-table, functions and fees.

A.S. BRINK - ORGANISER
c/o Geological Survey of S.A.
Private Bag X112,
PRETORIA.
0001

15 October 1981

☆☆☆

PUBLICATION OF PROCEEDINGS:
First PSSA-PVSA Conference, 1979

It has been agreed between the PSSA, the National Museum, Bloemfontein (who were originally going to publish the Proceedings)

and the Bernard Price Institute, that the BPI will undertake responsibility for publication of the Proceedings of the first PSSA Conference held in Bloemfontein in 1979.

The Proceedings will appear as volume 24 of the journal Palaeontologia africana, and it is expected that it will appear in the first half of 1982.

Several of the papers read at the 1979 PSSA Conference have already been published elsewhere, but abstracts will be included in the Conference Proceedings for the sake of completeness.

☆ ☆ ☆

PROPOSED S.H. HAUGHTON VOLUME

Work is going ahead on the preparation of a volume to honour Dr. Sidney Haughton. This volume will also now be published by the Bernard Price Institute for Palaeontological Research. The target publication date for this volume is October 1982. Progress will be reported in the next issue of the Newsletter.

REPORTS FROM MEMBERS

A few members have responded to Dr. Jacques van Heerden's call for annual reports on their work. These reports are presented below. We hope that many more members will submit reports for the next Newsletter, so that we can keep each other informed of who is doing what (and to whom?).....:

Bernard Price Institute (Palaeontology)

A) Dr. Rosemary M.S. Falcon.

Current work involves three major projects on coal sponsored mainly by the Co-operative Scientific Programmes division of the CSIR (Energy Programme):

- (i) a review of coal classification systems in the industrialised countries of the world
- (ii) an illustrated and annotated catalogue of the petrographic components of South African coals.

(iii) the petrographic/palynological analysis of the coals in the Witbank Coalfield (initially No. 2 seam).

B) Dr. C.E. Gow

1. Dentition & tooth replacement in the smallest Thrinaxodon specimens, for the July 1982 Congress.
2. Art Busbey (Chicago) and I each have a Triassic crocodilian braincase. This combined project is being held up due to Art having to finish his thesis on crocodilian jaw musculature.
3. Interest in thecodont tooth replacement continues with some fabrosaurid jaws ready for description.
4. Barn Owl accumulated small mammal bones from Wondergat water cave are sorted for identification once our Ph.D. student Marcelle Levinson has her key ready; this is nearing completion.
5. Early in the new year I want to do some X-ray work to determine the various

causes of pigmentation of fossil and sub-fossil bone.

6. Just appeared in S.Afr.J.Sci.:
The skull of Eunotosaurus (with
Andre Keyser).

Due out soon:

Recent stromatolites from Wondergat.

C) Dr. J.W. Kitching

(1) Final preparation work on fossil tortoise and part of plastron from the Elliot Formation, Clocolan district, Orange Free State.

(2) Manuscript on the tetrapod fauna and localities of the Elliot and Clarens Formation (with M.A. Raath) in advanced stage of writing-up.

(3) Supervision of preparation work on the dinosaurian specimens (Euskelosaurus and Massospondylus) from the Elliot and Clarens Formations of the north-eastern Orange Free State.

(4) The assembly of a Lystrosaurus skull and partial skeleton surrounded by at least twelve lydekkerinids (skulls and skeletons) from the Bergville district, Natal. Most interesting is the abundance of worm-burrows of varying diameters. This is the second specimen in the B.P.I. collection in which Lystrosaurus has been found surrounded by these small amphibians, the other specimen being from the Harrismith Commonage.

D) Marcelle Levinson

A taxonomic and ecological study of modern and fossil rodents from the Makapansgat Valley and Swartkrans hominid site, Transvaal.

E) B. Maquire

1. Flora of Makapansgat - floristics and ecology.
2. Palaeo-environmental studies with especial reference to the prehistoric Makapansgat flora and the potential vegetable dietary of Plio-Pleistocene hominids in the area.

3. Further notes on the quartzite artefacts from the Makapansgat Limeworks.
4. The floral environment and plant substitute ecology of the ! Ko Bushmen of Western Botswana.

Most of the above are in advanced stage of writing up.

Recent/forthcoming publications:

Further observations on the nature and provenance of the lithic artefacts from the Makapansgat Limeworks. Palaeontol. afr. 23:127-151(1980).

With Charles R. Peters:

Plant food niche of Makapansgat hominids
(To appear in Journal of Human Evolution)

F). Dr. Judy M. Maquire

My research work is currently centred on two related topics: bone accumulations, recent and fossil, and surface damage to bone and its causes. A continuing and long-standing research interest is the taxonomy of recent and fossil Hystricidae,

which formed part of the subject matter of my Ph.D, and which I hope to have prepared for publication shortly.

Research on bone accumulations has involved the analysis of a collection of bones from a striped hyaena breeding den near Arad, in the southern Judean desert, Israel, which was visited in August/September 1979, and of bones from a series of spotted hyaena dens in a private nature reserve in the eastern Transvaal. Existing collections of carnivore-damaged bones in the Transvaal Museum have also been examined as well as collections from various porcupine lairs. Some preliminary results were published in Palaeont. afr., 23(1980):75-98.

Surface damage to bone by a variety of bone-damaging agents such as carnivores, humans (teeth and tools), porcupines and insects have been examined using the scanning electron microscope, and work on chemical and other bone-weathering damage is proceeding.

G) T.N. Pocock

The Plio-Pleistocene vertebrate microfauna of southern Africa.

H) Prof. M.A. Raath

1. ⁷A protosuchid crocodilian from the Forest Sandstone (Upper Karoo) of Zimbabwe - manuscript completed.
 2. Révision of Syntarsus - ongoing.
 3. Sauropod dinosaurs from the Sipolilo District, central Zambezi Valley, Zimbabwe - nearing completion.
 4. Tetrapod localities in the Clarens and Elliot Formations of South Africa (with J.W. Kitching).
-

Prof. P.M. Galton

(University of Bridgeport, Bridgeport, Conn.
U.S.A.)

Current Research involving southern African material

- 1) A redescription of the postcranial anatomy of the stegosaur Kentrosaurus from the Tendaguru

of Tanzania (Geologica et Palaeontologica, Marberg, 15, August 1981, not seen yet) - sexual dimorphism in the number of sacral ribs is discussed along with growth changes based on a comparison of the bones of the mounted skeleton of a subadult individual at the Tübingen Universität with those of an adult at the Humboldt Museum für Naturkunde, East Berlin. The remaining material also includes a suite of sacra and femora plus the original specimens illustrated by E. Hennig (1915, but not any of the cranial material) - the suites of other bones, measurements of which were given by Hennig (1924), could not be located and were probably destroyed during World War II.

2) The holotype (BMNH 47338) of Paranthodon Nopsca 1928, type species Palaeoscincus africanus Broom 1912, came from the Kirkwood Formation of the Uitenhage Group (Lower Cretaceous) of Bushmen's River, Algoa Basin, Cape Province. It was originally referred to the Permian parietosaur Anthodon but was transferred to the Ankylosauria by R. Broom (1912). Preparation of the specimen by the

BMNH revealed that the holotype is an incomplete left half of the snout that, apart from the form of teeth, is very similar to the anterior part of the skull of Stegosaurus. A preliminary re-description of Paranthodon is given in a review of Cretaceous stegosaurs (N.Jb. Geol. Paläont. Abh. Stuttgart 161:28-46, 1981) and a fuller account will be given in Geobios, Lyon.

3) The holotype tibiotarsus of the pterodactyl Pterodactylus brancai Reck (1931) is redescribed along with several other similar tibiotarsi from the Tendaguru Beds of Tanzania. This species is tentatively referred to the Chinese genus Dsungarip-terus Young (1964) and attention is drawn to several avian-like features of the bone (Palaont. Z. Stuttgart 54:331-342, 1980).

Geological Survey, Pretoria

A) Dr. Éva Kovács-Endrődy

Two papers will be published in the near future:

"Notes on Glossopteris angustifolia Brongniart"

in Prof. K.R. Surange Commemoration Volume;

"The deceptive effect of broad sense interpretation of Glossopteris leaves" in Palaeontologia africana.

Two Papers were completed:

"The implication of taxonomic approach to the identity and age relationships of Glossopteris conspicua Feistmantel".

"Cyclopitys lanceolata n.sp. from the Vryheid Formation (Middle Ecca stage) of South Africa."

At the end of the year 1981 a manuscript on about 40 species of the Hammanskraal and Vereniging floras with the ranges of individual variations of each species will be ready.

B) C.S. MacRae

The palynostratigraphic study on Waterberg, Soutpansberg and Pafuri coalfields was continued. The work is beginning to show interesting results, but many hurdles still lie ahead.

I have just returned from a vacation in Europe and was afforded the opportunity by the Geological Survey to briefly visit a few palynologists (Prof. Chaloner, Dr. Mike Fisher, Dr. Warrington, Dr. Vissher and Dr. Pedersen). Many fruitful discussions were held in both academic and practical aspects of palynology. I briefly "squeezed" through some interesting Northern Hemisphere assemblages. The palynologists showed interest in the palynological work being done in South Africa.

Marine Geoscience, UCT

A) R.V. Dingle

1. Mesozoic ostracods of southern Africa

- a) Write up of the mid-Cretaceous ostracods from the Agulhas Bank, Zululand and the Falkland Plateau is now in the final stages.
- b) Write up of the Coniacian-Santonian ostracods of Zululand is now in the final stages.

- c) An atlas of the Cretaceous ostracods of southern Africa is now being assembled as part of an IGCP collaborative project with Prof. R. Reymont of Uppsala University. During my recent visit to UK I examined ostracod collections in the British Museum as part of this work and was greatly assisted by Dr. R. Bate who curates these materials.

Dingle, R.V. 1981. Campanian and Maastrichtian Ostracoda from south-east Africa. Ann.S.Afr.Mus., 85; 1-181.

Dingle, R.V. (in press). Some aspects of Cretaceous ostracodal biostratigraphy of South Africa and relationships with other Gondwanide localities. Cret. Res.

2. Cretaceous ostracods of New Zealand

During my recent visit to New Zealand (nothing to do with the rugby tour!) I collected extensively from outcrops in both North and South Islands. Much of the material has been processed and picking of residues will start in 1982.

B) JODY FREWIN

Lower Tertiary ostracods of the Agulhas Bank

It is hoped that this project, which will form Jody's M.Sc. thesis, will be completed in 1981.

C) RUTH MARTIN

Quaternary benthic foraminifera from the continental shelf off the Orange River.

This M.Sc. project was recently completed and has been handed for refereeing.

D) D. SALMON

Micropalaeontology of deep sea cores off S.E. Africa.

Dave resigned from the GSO earlier this year and consequently work on this project has been in abeyance for some time. It is hoped to appoint a SANCOR-sponsored replacement in 1982.

E) K. BJØRKLUND & S. ROBSON

Radiolaria from samples on the continental shelf and adjacent ocean basins.

Dr. Bjørklund (visiting from Norway) and Simon Robson undertook interesting studies on our offshore samples and their results will be published in our Tech. Rept. and Bulletin series later this year.

F) W.G. SIESSER

Cretaceous nannofossils from southern Africa.

Bill Siesser, who left UCT a couple of years ago and now works in USA, has recently had a manuscript on Cretaceous nannofossils (mainly from Zululand) accepted for publication by Jl. Paleontology.

Dr. L. Scott

(Institute for Environmental Sciences, University of the Orange Free State).

Current projects:

Pollen analyses of Quaternary deposits

from the Transvaal, O.F.S., N.W. Cape
and Marion Island.

Recent publications:

Scott, L., 1981. A 5000 year old pollen
sequence from spring deposits in the
bushveld at the north of the Soutpansberg,
South Africa.
Palaeoecology of Africa, 13. In press.

Scott, L. and Klein, R.G., 1981. Hyaena
accumulated bone assemblage from Late
Holocene deposits at Deelpan, Orange
Free State. Annals of the S.A. Museum.
In press.

Markgraf, V. and Scott, L., 1981. Lower
timberline in central Colorado during the
past 15 000 years. Geology, 9, 231-234.

Scott, L., 1982. Pollen analyses of Late
Cainzoic deposits in the Transvaal, South
Africa, and their bearing on palaeoclimates.
SASQUA-conference 1981. Palaeoecology of
Africa 14. In press.

* * *

GENERAL NEWS

1. Symposium on The Species in Evolution :
March 1982.

This symposium, organised by Dr. Elisabeth Vrba, will be held at the Transvaal Museum on 8th and 9th March 1982. The invited speaker will be Dr. Niles Eldredge of the American Museum of Natural History.

Numbers attending will be limited; in fact, by the time this Newsletter is posted it seems very likely that all the available places will have been filled. Circulars were sent out in the latter half of 1981.

Enquiries to:

Dr. E.S. Vrba,
Transvaal Museum,
P.O. Box 413,
PRETORIA.
0001

2. The Society congratulates Dr. James Kitching on the award of the degree of D.Sc. (honoris causa) by the University of Port Elizabeth on 24th April 1981.
3. The Society also congratulates Dr. Sidney Haughton on his recent election to Honorary Fellowship of the Royal Society of South Africa.
4. An item by J.L. Orpen in the October 1981 issue of The Zimbabwe Science News (vol 15. no. 10) reports that stromatolitic structures have been found in Archaean sediments intruded by the Mushandike Granite (\pm 3 455 260 myr) some 15 km west of Fort Victoria, Zimbabwe. "The Mushandike Stromatolites are the best preserved and most convincing biogenic structures in rocks 3 500 million years old yet discovered" (See also Orpen J.L. and Wilson, J.F., Nature, 291:218-220 (1981)).

SUBSCRIPTIONS DUE

Membership subscriptions for 1982 are now due. Please send your subs to:-

1

PSSA/PVSA,
c/o BPI (Palaeontology),
University of the Witwatersrand,
1 Jan Smuts Ave.,
Johannesburg.
2001

Make out your cheques to PSSA/PVSA.

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R5.00 p.a.

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