

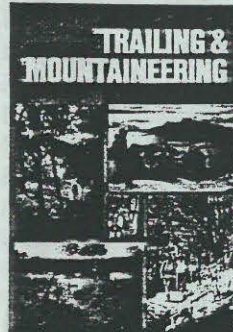
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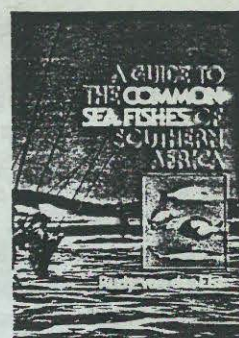
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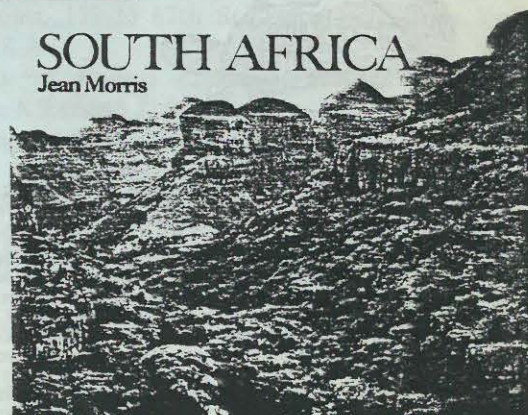
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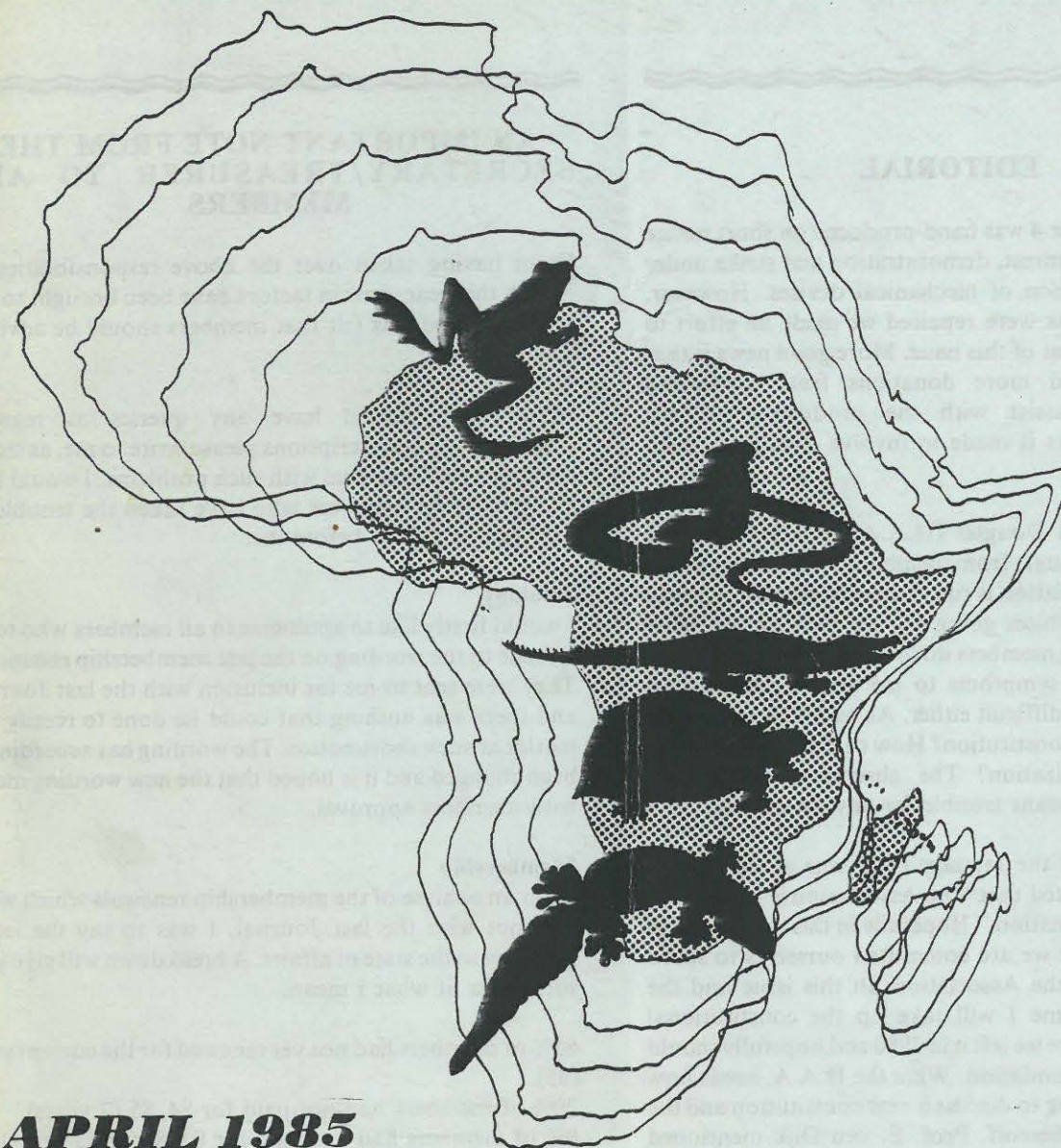
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# H.A.A. NEWSLETTER 5



**APRIL 1985**

**Herpetological Association of Africa**



## EDITORIAL STAFF

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## EDITORIAL

**H.A.A. Newsletter 4** was hand-produced on short notice during a time of unrest, demonstration and strike under the local population of mechanical devices. However, after all powercuts were repaired we made an effort to improve the format of this issue. More good news is that we have received more donations from publishing Companies to assist with the production of the **Newsletter**. Efforts is made to involve even more such companies.

I hear from Rod Douglas (H.A.A. secretary) that he received several letters from members complaining about the way this association is run. I must admit that in a way I agree with the voices going up, but then on the other hand what did the members do to ensure a well organized association? The symptoms to me are obvious and to diagnose was not difficult either. An association without a clearly defined constitution? How could members hope for better organization? The absence of an elected committee sure means trouble for any association.

In the **Editorial** of the January 1980 issue of the H.A.A. Journal it was stated that "the Association is awakening from a deep hibernation." Hopefully in this issue you will find evidence that we are committed ourselves to speed up the arousal of the Association. In this issue and the newsletters to come I will take up the constitutional development where we left it in 1980 and hopefully mould it into a strong foundation. What the H.A.A. needs now is a general meeting to discuss a new constitution and the implementation thereof. Prof. E. van Dijk mentioned the possibility of such a meeting to be held at the Pietermaritzburg venue on the 26th July! It is your duty to be there!

EDITOR

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## AN IMPORTANT NOTE FROM THE SECRETARY/TREASURER TO ALL MEMBERS

From having taken over the above responsibilities in March this year, certain factors have been brought to my attention, and it is felt that members should be advised accordingly.

If members should have any queries as regards membership or subscriptions please write to me, as this is the only way I can deal with such problems. I would like to thank those members who have taken the trouble to put their problems before me.

## Apology

I would firstly like to apologize to all members who took offence to the wording on the last membership reminder. They were sent to me for inclusion with the last Journal and there was nothing that could be done to rectify the matter at such short notice. The wording has accordingly been changed and it is hoped that the new wording meets with members approval.

## Membership

After an analyse of the membership renewals which were sent out with the last Journal, I was to say the least, horrified at the state of affairs. A breakdown will give you some idea of what I mean.

65% of members had not yet renewed for the current year (85).  
20% of members had not paid for 84/85 (2 years).  
8% of members had not paid for 83/84/85 (3 years).  
5% of members had not paid for 82/83/84/85 (4 years).

Therefore only 18% of members were paid as at 1st March 1985. The position has, I am pleased to report, improved to 45% as at 30th April 1985. The majority of outstanding memberships are now overseas members.

## FitzSimons' Snakes of Southern Africa

By Donald G. Broadley. 1983. 230 x 210 mm. Numerous colour plates, distribution maps, black and white illustrations; bibliography and index. Hardback. South African retail price R59,95 plus G.S.T. = R65,95. Export price US \$69,95 including postage and packing.  
ISBN 0 908387 04 0

*FitzSimons' Snakes of Southern Africa* is the definitive study of the 160 species and subspecies of snakes known to occur in the southern African subcontinent, i.e. south of a line drawn from the Zambezi River in the east to the Kunene River in the west. When first published in 1962, *Snakes of Southern Africa* represented practically a lifetime of work by South Africa's great authority on herpetology, the late Dr Vivian F.M. FitzSimons. In the more than twenty years since then, numerous taxonomic changes have been made, including the description of twenty new forms and the relegation of ten others to synonymy, while many new locality records have helped to clarify the distributions of poorly known taxa. Dr Donald G. Broadley, who assisted with the preparation of the first edition, has revised and updated the entire book, which now includes 117 drawings illustrating details of head scaling, 92 photographs, 83 distribution maps and 81 colour plates of original watercolours by the eminent animal artist, the late P.J. Smit. A new chapter on venom and the treatment of snakebite has been provided by Dr P.A. Christensen, consultant at the South African Institute for Medical Research. A full description of every form is provided, together with synoptic keys, bibliography, field notes and details of colour, size and distribution. The introduction provides the necessary background for the layman and the bibliography covers the relevant literature up to 1982. A general map supplements the distribution maps with geographical details and place-names.

Vivian F.M. FitzSimons (1901-1975) was one of a family of pioneers in South African herpetology. His father, F.W. FitzSimons, was an internationally renowned zoologist and established the Port Elizabeth Snake Park, the first in Africa, in 1918, while his brother, D.C. FitzSimons, was the founder and owner of the Durban Snake Park. He joined the staff of the Transvaal Museum in 1924, obtained his D.Sc. in zoology at the University of the Witwatersrand in 1942, and became Director of the Transvaal Museum in 1946. He retired in 1966 and in 1968 was awarded a D.Sc. *honoris causa* by Rhodes University.

Donald G. Broadley is Curator of Herpetology and Senior Curator of the National Museums and Monuments of Zimbabwe in Bulawayo. He obtained his M.Sc. and Ph.D. from the University of Natal in African reptiles. His major current project is *Reptiles Zambesiaca*, a taxonomic and zoogeographical study of the reptiles of Botswana, Zimbabwe, Zambia, Malawi and Mozambique.

The present state of affairs cannot be allowed to continue where 33% of members are more than a year behind with payments. Firstly the costs of producing, printing and posting, both the newsletter and journal, have risen steeply over the last few years and paying members cannot be expected to subsidise "non paying members". Secondly it does not in anyway benefit the Association by quatory fantastic membership figures when only 66% of members are paid up. It is felt that if a member does not have the enthusiasm to renew his or her membership, then it is better if these people are removed from the membership list. **To conclude it has been decided that members who are not paid up by the time the next Journal goes to press, will not receive the next Journal or further newsletters.**

## Payment of membership fees

Membership fees payable to the Association are due on the 1st of January each and every year. As the Association does not charge prospective members on entrance fee, it is felt that those members who join in the latter part of the year will be liable for renewal of membership, as all other members, on the 1st of January the following year.

## Correspondence and receipts

As the South African postal rates have spiralled over the past few years receipts for all money received and correspondence from the Secretary/Treasurer will be posted with the newsletter. Only in urgent matters will separate postage be considered.

## Finances

As no balance sheet on income and expenditure account has been published since 1979 the present treasurer does not hold himself responsible for the accounting of the moneys of the Association prior to the 26th February 1985 when the sum of R1 223,83 was transferred from Port Elizabeth to Bloemfontein. However I shall be accountable for that sum and all other moneys received and spent from the above date. An account of income and expenditure will be sent to all members as close to the 28th February each and every year.

R. DOUGLAS



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## CONSTITUTION OF THE H.A.A.

While paging through "old" H.A.A. journals, the heading "New Constitutional for the H.A.A." struck me. After reading this proposed constitution and the Editorial (February 1980) I searched through the following issues hoping to follow the embryonic development of a new constitution. Needless to say this was another stillborn baby of Mother H.A.A.!

Synonym to any well organized association is a sound constitution and an efficient committee. I am convinced that a dynamic committee is the only hope we have to revive the H.A.A. and deliver a worthwhile service to the members (300 plus). It therefore, seems obvious that the revision of the "constitution" is long overdue.

### Original Constitution

"1. The name of the Association shall be the Herpetological Association of Africa.

2. The objects of the Association are:

- 2.1 To collect and exchange, inter alia, through the medium of the Association Journal, information on all aspects of the zoogeography, ecology and behaviour of the herpetofauna of Africa. To encourage the publication of this information in both scientific journals and popular literature.
- 2.2 To build up comprehensive study collections of African reptiles and amphibians in the Museums of Africa.
- 2.3 To educate the public towards a sane and reasonable attitude to reptiles and amphibians in general and snakes in particular. This object may be carried out by means of lectures, exhibitions, films and articles.
- 2.4 To promote, where necessary, the addition of further reptiles and amphibians to the list of protected fauna. To ensure that the protection afforded by existing laws and by National Parks and Wild Life Sanctuaries is effectual.
- 2.5 To encourage the study of reptiles in captivity and exchange specimens among members.
- 2.6 To organise expeditions to the lesser known areas of Africa and to render all possible assistance to members on field trips away from their own districts.

2.7 To collect and receive subscriptions and donations for the purpose of carrying out the above objects.

### Membership

- 3.1 Membership shall be open to any herpetologist, resident in Africa, who has given satisfactory proof of his enthusiasm and ability.
- 3.2 Candidates for membership may be introduced by a member, or may qualify by submitting material and observations to the Hon. Secretary.
- 3.3 Herpetologists and organisations outside Africa may become Associate Members. An Associate Member shall have no say in the running of the Association, but will receive the Journal as it appears.
4. A member may be expelled from the Association for failing to support its objects. Such action shall require a two-thirds majority in a postal vote by all members.
- 5.1 Members shall pay an Entrance Fee of \$1 Rhodesian (or its equivalent) and an Annual Subscription of \$1 Rhodesian (or its equivalent). Associate Members shall pay no Entrance Fee, but shall pay an Annual Subscription equivalent to \$1 Rhodesian, except where an exchange of publications has been agreed. Life Members shall subscribe \$15 Rhodesian (or its equivalent), or \$6 Rhodesian (or its equivalent) if over the age of 60.
- 5.2 The Entrance and first Annual Subscription shall be paid on admission to Membership. Thereafter, subscriptions shall fall due on the first of April each year. Membership is automatically forfeited by those more than one year in arrears with subscriptions.
6. Branches may be formed within the Association in order to co-ordinate the activities of members in their own district. The Branch shall have no separate voting powers. Branches shall be self-supporting and shall have an Honorary Branch Secretary/Treasurer.
7. All Association and Branch Accounts shall be audited annually.
8. The Officers of the Association shall consist of a Chairman and an Honorary Secretary/Treasurer.

9. The Constitution may be amended by a two-thirds majority of members voting by post. Provided that not less than 51 % of all paid-up Association Members cast their votes.

10. The Official organ of the Association shall be the 'Journal of the Herpetological Association of Africa', published once or twice annually and circulated to all members. This will be compiled by the Hon. Secretary, acting as Editor, using information and material received from members, abstracted from scientific journals, etc.
11. The Association Badge shall be a rearing Banded Cobra (*Naja haje* spp. *annulifera*) in black and gold, superimposed on a green map of Africa. Below, on a scarlet scroll, is the motto "Ex Africa semper aliquid novi".

As a first step of constitutional development in the association I want to refresh the minds of our members with the "proposed new constitution" of 1980 and the following reaction:

### 1. Editorial (February 1980)

"In this issue of the Journal a new constitution is proposed. Our Association should offer a service to all its members — and all the members should be prepared to contribute towards the efficient functioning of the H.A.A. The new constitution proposes that the committee — editor, treasurer and secretary — should be elected one year before they take office, and should serve for one year."

### 2. New Constitution (Herp. Assoc. Afr. 22)

Below is a modified constitution. Members are requested to submit suggestions and comments to the editor before the end of May 1980, so that these may be included in the next issue of the journal. Where differences of opinion arise, members will be requested to vote. The only major changes to the constitution are that the committee will be elected a year in advance, and will serve for one year.

### CONSTITUTION AND RULES

1. The name of the Association shall be the Herpetological Association of Africa.
2. The objects of the Association are:-
  - 2.1 To collect and exchange, inter alia, through the medium of the Association Journal, scientific

journals and popular literature, information on all aspects of the zoogeography, ecology and behaviour of the herpetofauna of Africa.

- 2.2 To build up comprehensive study collections of African reptiles and amphibians in the Museums of Africa.
- 2.3 To educate the public towards a sane and reasonable attitude to reptiles and amphibians in general and snakes in particular. This object may be carried out by means of lectures, exhibitions, films and articles.
- 2.4 To promote, where necessary, the addition of further reptiles and amphibians to the list of protected fauna. To ensure that the protection afforded by existing laws and by National Parks and Wild Life Sanctuaries is effectual.
- 2.5 To encourage the study of reptiles in captivity and exchange specimens among members.
- 2.6 To organise expeditions to the lesser known areas of Africa and to render all possible assistance to members on field trips away from their own districts.
- 2.7 To collect and receive subscriptions and donations for the purpose of carrying out the above objects.
- 3.1 Membership shall be open to anyone with an interest in African herpetology.
- 3.2 Libraries or other institutions may join the Association, but will have no voting rights.
4. A Member may be expelled from the Association for failing to support its objects. Such action shall require a two-thirds majority in a postal vote by all members.
- 5.1 Members shall pay an annual subscription as determined from time to time by the committee.
- 6.1 The committee shall consist of three members resident in Africa: a treasurer, a chairman/secretary and an editor.
- 6.2 The committee will hold office for one year.
- 6.3 A treasurer elect, chairman/secretary elect and an editor elect shall be voted for, one year before they take office.



7. The Constitution may be amended by a two-thirds majority of members voting by post. Provided that not less than 51% of all paid-up Association Members cast their votes.

8. The official organ of the Association shall be the "Journal of the Herpetological Association of Africa."

9. The Association Badge shall be a rearing Banded Cobra (*Naja haje haje*, var. *annulifera*) in black and gold, superimposed on a green map of Africa. Below, on a scarlet scroll, is the motto "Ex Africa semper aliquid novi."

### 3. Editorial (December 1980)

"Only a few constructive comments were elicited from the latest attempt. These are appreciated and some further improvements are made in this issue."

### 4. Constitutional Comments (J. Herp. Assoc. Afr. 23)

"The specification for the badge should be amended to 'rearing Banded Cobra (*Naja haje*)'. Do not specify the subspecies as the banded phase occurs in both *annulifera* and *anchietae*"

Don Broadley

"Point 7 of the old constitution should be incorporated and 2(f) on the new discarded. Perhaps we should substitute 'to improve the journal'. I suggest substituting for point 4 of the old 'Anyone who brings the Association into disrepute will have his/her/its membership terminated...'

May I suggest voting within 3 months preceding the appearance of the final journal with which the outgoing office-bearers will be associated, or within 30 days of the appearance of the journal.

I feel we should have a management committee of 6 members: the editor, secretary/treasurer, chairman being mandatory.

Both old and new constitutions should be published side-by-side with the final set of comments. The new constitution would be adopted after further comments and final voting published with issue 24.

John Visser.

### 5. Editorial (December 1981)

"Final voting on the new constitution will be delayed until the next issue, as the management of the Association and the Journal will then be stable."

### 6 Editorial (December 1982)

"Three years ago it was planned to revise and then publish our constitution. The general response was limited and the plans dropped. If so desired this matter could be raised again, but ideally should be discussed at a meeting."

In the next issue I will then publish a few suggestions hoping to receive more suggestions and comments in order to draw up a concept constitution for the members to vote on.

## INSTITUTIONAL NEWS

### 1. Department of Zoology University of Stellenbosch Stellenbosch

#### A. Current projects by staff members

1. Factors that determine the distribution of lizards in the fynbos ecosystem — P. le F.N. Mouton, B.W. Oelofsen, D.P. Mostert.
2. An analysis of the *Cordylus cordylus* complex in the southwestern Cape — P. le F.N. Mouton.
3. Geographical colour variation in *Cordylus polyzonus* in the southwestern Cape — P. le F.N. Mouton, D.P. Mostert, B.W. Oelofsen.
4. Changes in ovarian histology in the live-bearing skink *Mabuya capensis* in the southwestern Cape with emphasis on the corpus luteum and maintainance of gestation — W.J. Veith.

#### B. Current projects by students

1. The influence of daylength and temperature on the reproductive status of *Mabuya capensis* — A.F. Flemming (Hons).
2. Metabolic rates and enzyme activity in two *Phyllodactylus* species with differing thermal requirements — A.G. Henstock (Hons).

3. Thermoregulation in melanistic versus non-melanistic forms of *Cordylus cordylus* — A.F. Cronjé (Hons).

4. Composition of the fossil lizard-fauna from Saldanha and Langebaan — J.H. van den worm (M.Sc.)

### C. Recent publications and theses

1. Van Wyk, J.H. 1982. The morphological and physiological changes during the reproductive cycle of the female rock lizard, *Agama atra* Daudin, 1802. M.Sc. Thesis, University of Stellenbosch.
2. Welman, J. 1982. An investigation into the parameters governing the interrelationship between temporal fenestrae and associated jaw adductor muscles in selected Lacertilians. M.Sc. Thesis, University of Stellenbosch.
3. De Lange, Pietro C. 1984. Die nier- en nierpoortmorfologie van *Geochelone pardalis* (Chelonia : Testudinidae). M.Sc. Tesis, Universiteit van Stellenbosch.
4. Mouton, P. le F.N. 1985. Comments on the *Cordylus cordylus* complex in the southwestern Cape. *J. Herp. Assoc. Afr.* 31: 16-18.
5. Mouton, P. le F.N. and Mosert, D.P. 1985. Description of a new species of *Afroedura* (Loveridge) (Reptilia : Gekkonidae) from the southwestern Cape. *S. Afr. J. Zool.* (in press).
6. Veith, W.J. 1985. The annual reproductive cycle of the skink *Mabuya capensis* in the southwestern Cape. (Currently under review).
7. De Lange, Pietro C. and Oelofsen, B.W. 1985. A new functional morphological unit in the kidney of the tortoise *Geochelone pardalis*. (Currently under review).  
P.le F.N. Mouton

### 2. Herpetological Section Jonkershoek Nature Conservation Station Cape Province Department of Nature Conservation Stellenbosch

The Herpetology section of the Cape Province Department of Nature Conservation was founded in 1974 in Grahamstown with John Greig as the first Herpetologist. This section later moved to Stellenbosch and included the services of research assistants Richard Boycott and Atherton de Villiers. During 1981 John Greig accepted the post as Editor of the "African

Wildlife" and Richard Boycott joined the Transvaal Snake Park in 1983. Ernst Baard was appointed as herpetologist in 1983 and together with Atherton de Villiers presently man this research station.

### Current projects

1. The distribution of Reptiles and Amphibians in the Cape Province.  
This project commenced in 1974 and is still ongoing.
2. The Ecology and satus of the geometric tortoise, *Psammodromus geometricus*.  
This project was initiated in 1972 as a mark recapture study by Rheinhold Rau of the South African Museum and later transfered to John Greig. The first phase of this project included growth and activity studies and will now be included into a more detailed ecological study conducted by this Herpetology section.
3. Ernst Baard is also associated with the study regarding the distribution of lizards in the fynbos ecosystem, currently conducted by the Department of Zoology, University of Stellenbosch.

The herpetological collection at Jonkershoek comprises of  $\pm 5\ 000$  specimens collected throughout the Cape Province. -These specimens are being transvered to museums in the Cape Province.

### Recent publications

GREIG, J.C. & BURDETT, P.D. 1976. Patterns in the distribution of southern African terrestrial tortoises (Cryptodira: Testudinidae). *Zool. Afr.*, 11(2): 249-273.

GREIG, J.C. 1978. Alligator genetic conservation. *Herpetol. Rev.*, 9(1): 23.

GREIG, J.C. & BOYCOTT, R.C. 1979. Our land tortoises. *Afr. Wildl.*, 32: 39-42.

GREIG, J.C., BOYCOTT, R.C. & DE VILLIERS, A.L. 1979. Notes on the elevation of *Rana fasciata montana* FitzSimons, 1946 to specific rank, and on the identity of *Rana fasciata sensu* Burchell, 1824 (Anura: Ranidae). *Ann. Cape Prov. Mus. (Nat. Hist.)*, 13 (1): 1-30.

GREIG, J.C. & BOYCOTT, R.C. 1980. The Eastern Cape — a tortoise paradise. *E. Cape Nat.*, 69: 8-10.

GREIG, J.C. 1980. The bite of the boomslang. *E. Cape Nat.*, 70: 29-30.



BOYCOTT, R.C. 1982. On the taxonomic status of *Heleophryne regis* Hewitt, 1909 (Anura: Leptodactylidae). *Ann. Cape Prov. Mus. (nat. Hist.)*, 14(3): 89-108.

GREIG, J.C. & DE VILLIERS, A.L. 1982. The geometric tortoise — symptom of a dying ecosystem. *Veld & Flora*, 68(4): 106-108.

DE VILLIERS, A.L., BAARD, E. & BRANCH, W.R. 1983. "*Lacerta*" *australis*: additional material. *J. Herpetol. Assoc. Afr.*, 29: 13-14.

DE VILLIERS, A.L. 1983. The versatile tonue of Austen's gecko. *Afr. Wildl.*, 37(3): 106-107.

DE VILLIERS, A.L. 1983. A records of albinism in the olive house snake *Lamprophis inornatus* (Serpentes: Colubridae). *J. Herpetol. Assoc. Afr.*, 29: 19-20.

GREIG, J.C. & DE VILLIERS, A.L. 1983. The black mamba in love or war? *Afr. Wildl.*, 37(4): 157-159.

Ernst Baard

### 3.1 Department of Biochemistry University of the Western Cape Bellville

Dr. Alan Channing reports:

My research is base on a survey of southern African tadpoles. This is being undertaken in collaboration with various workers around the country.

#### Projects in detail

1. With Dr. D. Crapon de Caprona, University of Bielefeld and Ricky Taylor, Natal Parks Board: Breeding *Hyperolius marmoratus*. We have a colony of frogs breeding in her laboratory.
2. With Dr. D. Crapon de Caprona: Description of breeding and tadpole of an East African *Hyperolius*.
3. With R. Boycott, Transvaal Snake Park: Tadpoles of *Heleophryne*.
4. With M. Simmonds, University of London: Feeding strategies in *Xenopus* tadpoles.

#### Visiting Herpetologist

Dr. R.C. Drewes, California Academy Sciences spent two weeks in the middle of 1984 with me. We collected frogs and tadpoles in Namaqualand, including a new species.

#### News items

1. I spent 4 weeks collecting tadpoles in SWA in January, working with Dr. H. Berger-Dell'mour (State Museum) and Mike Griffin (Department of Nature Conservation). The rains were a little late, but we managed to record many voices and produce a collection of tadpoles. It was quite exciting hunting for *Leptopelis bocagei* at night between feeding elephants.
2. I have been appointed as an Associate in Herpetology of the Museum of Natural History, University of Kansas. This an honorary position. They have an associate on every continent.

### 3.2 Department of Zoology University of the Western Cape

The genus *Scelotes* displays a full spectrum of limb regression ranging gradually from pentadactyle to completely limbless forms. This material is ideal for investigating several interesting problems in the field of evolutionary biology. For example, how and why did limblessness evolve in this genus? How are the fifteen or so species interrelated? What are the suite of characteristic associated with limb regression? To what extent are the morphocline a reflection of phyletic history?

Cecil Leonard

### 3.3 Department of Zoology University of Cape Town Rondebosch

#### Current Herpetological projects in Zoology Department: U.C.T.:

PICKER, M.D. Hybridization and habitat selection between *X. gilli* and *X. laevis* in the S.W. Cape.

PICKER, M.D. & FIELDING, P. Relative survival abilities of *X. gilli* and *X. laevis* in tannin-rich, low pH blackwater sponges of the S.W. Cape.

#### Post-graduate projects

ARMSTRONG, A.J. (M Sc). The effect of plant defence mechanisms on the feeding ecology and related physiology of the Angulate tortoise, *Chersine angulata*, and other select tortoise species.

HARRISON, J. (Honours). Phonotaxis and sound production in hybrid *Xenopus gilli* x *X. laevis*.

HARRISON, J. A comparative study of respiration and metabolic activity of the chameleon *Bradypodion pumilis* and skink *Mabuya* at selected temperatures.

#### 1983 Publications

BROWNIE, S. & LOVERIDGE, J.P. The oxygen consumption of limbed and limbless African skinks

(Sauria: Scincidae): circadian rhythms and effect of temperature. *Comp. Biochem. Physiol.* 74A: 643-647.

MILLAR, R.P., NICOLSON, S., KING, J.A. & LOUW, G.N. Functional significance of TRH in metamorphosing and adult anurans. In: *Thyrotropin - Releasing Hormones*. E.C. Griffiths & G.W. Bennett (eds.) Raven Press, New York, pp. 217-227.

PICKER, M.D. Hormonal induction of the aquatic phonotactic response in *Xenopus*. *Behaviour* 84: 74-90.

#### 1985 Publications

PICKER, M.D. Hybridization and habitat selection in *Xenopus gilli* and *Xenopus laevis* in the south-western Cape Province. *Copeia* (1985).

Dr. M.D. Picker



#### THE PYFON SONG

(To be sung, in a Cockney accent, to the tune of "Your Biby 'as Gorn Dahn the Plug'ole")

A lidy wuz barfing 'er pyfon —  
A strange fing to do you might fink —  
But it 'ad a few mites,  
So along wiff 'er tights  
She gave it a swish in the sink.  
She honly turned rahnd for a minnit —  
Which you nevvver should do to a snake —  
When she turned back after a minnit  
She realised 'er fatal mistake!  
'Er pyfon 'ad utterly vanished!  
Vanished completely away!  
"Oh where is my dear little Monty?" she cried  
And she 'eard the hangels say:

(All togevver now:)

Your pyfon 'as gorn dahn the plug'ole,  
They're just not the stop at 'ome types,  
That's the trouble with serpents  
The silly old twerp went  
Exploring the bends in yer pipes!  
Your pyfon is perfectly 'appy,  
And you won't 'ave to barf 'im no more —  
'E's slivvering away dahn the drinepipe  
And 'e'll block up the toilit next door.

Reprinted from the September 1979, issue of *The Herptile* journal of the International Herpetological Society.

#### FROG RESERVE OPENED

A unique reserve for an endangered frog species has been opened in the Cape of Good Hope Nature Reserve.

The frog — the only Southern African frog on the International Red Data list — is the Cape platanna (*Xenopus gilli*), and the special "reserve within a reserve" has been created by the Cape Platanna Protection Committee to protect the little frog's rapidly diminishing population.

The Cape platanna is found only in the acid natural vleis (marshes) characteristic of the south-western Cape's fynbos region, and encroaching development has restricted it to a few pools such as the one in the Cape of Good Hope Reserve.

*The Argus*, January 17

A New Reprint

#### HERPETOLOGY OF ARABIA

by John Anderson

with an extensive introduction by Alan E. Leviton and Michele L. Adrich including a new checklist of Arabian amphibians and reptiles

In 1896 John Anderson published the book *A Contribution to the Herpetology of Arabia, with a Preliminary List of the Reptiles and Batrachians of Egypt*, a pioneering effort to summarize the herpetology of those regions and, to this day, the only herpetology of the Arabian Peninsula. The original book is exceedingly rare, probably published in an edition of no more than 100 copies, and is much less known than Anderson's major work on amphibians and reptiles in the *Zoology of Egypt* series. The Arabian book includes a description of the physical features, a review of the amphibians and reptiles of the Arabian Peninsula including Yemen, an exhaustive bibliography of the herpetology of Arabia, and a checklist of species both of Arabia and of Egypt including the Sinai. This reprint includes a new introduction with a biography and portrait of Anderson, a list of his publications and an up-to-date checklist of the herpetofauna of Arabia, with map. The book is 160 pages, 6 x 9 inches (15.5 x 23 cm), and bound in buckram; there is one plate in full color.

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SSAR members must place their orders now to take advantage of the special pre-publication price. The book will be published in December 1984. Send orders to Dr. Douglas H. Taylor, Department of Zoology, Miami University, Oxford, Ohio 45056, USA. Please make checks payable to "SSAR". All USA orders are postpaid; shipments outside the USA will be charged only the additional shipping costs in excess of domestic rates. Overseas customers must pay in USA funds or by International Money Order, or may charge to MasterCard or VISA (give account number and expiration date). A complete list of Society publications and membership information can be obtained from Dr. Taylor. The Society publishes *Journal of Herpetology*, *Facsimile Reprints in Herpetology*, *Herpetological Review*, *Herpetological Circulars*, *Catalogue of American Amphibians and Reptiles*, *Contributions to Herpetology*, and *Recent Herpetological Literature*.

SOCIETY FOR THE STUDY OF AMPHIBIANS AND REPTILES



## BOOKS

**Vertebrate Ecology and Systematics. A Tribute to Henry S. Fitch**, edited by Richard A. Siegel, Lawrence E. Hunt, James L. Knight, Luis Malaret and Nancy L. Zuschlag. 1984. 278 pp., ill. \$30.00, paperback. Museum of Natural History, University of Kansas, Lawrence, Kansas 66045.

Collections of scientific papers honoring venerable populations biologists seem to be proliferating of late. The present volume, although perhaps a trifle more modest than those dedicated to G.E. Hutchinson, R.H. MacArthur, and E.E. Williams, nonetheless stands as an equally substantial tribute to another eminent field worker, Henry S. Fitch.

Appropriately, population studies of snakes dominate this volume (Fitch not only pioneered difficult work on snake ecology, but also contributed some of the most detailed and lasting ecological studies of serpents). Snakes are exceedingly intractable subjects for population studies, being cryptic, rare and mercilessly persecuted by humans (including herpetologists).

In the introduction, Duellman exploits the turtle-hare analogy, pointing out that Fitch avoided biological fads and jargon (often glib, fast and simplistic) in preference for solid natural history, frequently painstakingly slow and tedious. Fitch's wife, Virginia, provides a complete list of his 150 publications over the past half century, which encompass a wide variety of subjects, ranging from bird behaviour to reptilian ecology. Fitch's studies include work on prairie succession, spiders, frogs, salamanders, turtles, hawks, owls, other birds, armadillos, bats, coyotes, opossums, and rodents, although the vast majority of his papers are on lizards and snakes.

Some 18 chapters follow, 8 of which are on snakes, 3 on lizards, and 2 on anurans. One chapter is devoted to reptilian chemoreception, another the herpetogeography, one to systematics of the percid fish *Etheostoma lepidum*, one to a turtle population study, and another (by John, son of Fitch) to habitat selection in the deer mouse, *Peromyscus maniculatus*. The final chapter describes a new species of anolis lizard named *fitchi*, of course, after the only biologist to have published field observations on the species.

The Festschrift is made even more wonderful by its appearance during the lifetime of its tributee. Congratulations, Henry, on your most productive scientific career (far from over!) and on the truly magnificent impact that you have had on population ecology.

Erich R. Pianka  
Herp. Review 15(4), 1984: 118.

## ALYTES

INTERNATIONAL JOURNAL OF BATRACHOLOGY

Founded in Paris in 1982, the "Société Batrachologique de France (Société pour l'Etude et la Protection des Amphibiens)" is the first society in the world to be devoted specifically to batrachology. The promoters of the SBF think that, although the study of amphibians has long been included in herpetology, amphibians are only distantly related to reptiles and require a specific discipline, namely batrachology; herpetology should be restricted to the study of reptiles. Membership in the SBF is open worldwide to anyone interested in amphibians.

The SBF publishes the new quarterly journal *Alytes*, which is open to all kinds of papers dealing with the amphibians, their systematics, geographic distribution, biology and protection. The two official languages of the journal are French and English. English abstracts are provided for all papers.

42 authors from 11 countries contributed the 60 papers which were published in the first three volumes of *Alytes* (1982-1984). These papers cover various fields of interest: taxonomy, 19; distribution, 17; conservation, 6; ecology and ecoethology, 5; behaviour, 3; others, 10. They deal with amphibians of all parts of the world: Europe, 32; Asia, 8; Africa, 4; Australia, 2; America, 1. In these three volumes, 13 new names were proposed: 10 new specific and subspecific names (Anura, 8; Urodela, 2) and 3 new generic and subgeneric names (Anura, 1; Urodela, 2).

Subscription to *Alytes* is independent from membership in the SBF. Subscription rates for volume 4 (1985) and for non-Europeans are as follows:

SBF members - Subscription to SBF + ALYTES ..... US \$ 18  
Non-members - Individual subscription to ALYTES ..... US \$ 12  
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Send orders to Dr. Alain Dubois, General Secretary, Société Batrachologique de France, Laboratoire des Reptiles et Amphibiens, Muséum national d'Histoire naturelle, 25 rue Cuvier, 75005 Paris, France.

Payments should be made in US Dollars by checks (payable to "Société Batrachologique de France") or by credit cards (contact the General Secretary for instructions).

Please contact the General Secretary for any information on the SBF, back issues of *Alytes*, instructions to authors, etc.

## FORGET ABOUT GOLF AT THE CROC FARM...

By Michael Johnson

A multi-million-rand crocodile farm — planned to be developed into the largest in the world — has been opened to the public on the Natal South Coast. Landscaped pens, with grassy banks, trees and pools, are at first glance beautiful golf links. But the water traps are deadly. They are the homes of 60 adult female and 12 adult male Nile crocodiles. And in four years there will be more than 8 000 of them — all safely enclosed in pens — at Crocworld. "We looked at the feasibility of farming prawns, oysters, fish and algae — and when someone suggested farming crocodiles we all laughed," said Mr. Dudley Crookes, managing director of the Crookes Brothers company. "But we stopped laughing when we saw a two-volume feasibility study for a crocodile farm on this property." The company spent R3,2-million in developing the commercial and tourist amenities at the farm, between Umkomaas and Scottburgh, about 45 minutes by car from Durban. Veteran crocodiel authority Mr. Tony Pooley, the complex manager, will lecture tour groups and answer questions from visitors. A resource centre, complete with lecture theatre and audio-visual equipment, will provide information and presentations for groups. Other displays at the farm include a perspex "snake tunnel" through the middle of a snake enclosure, static displays, three kilometres of nature trails in indigenous coastal vegetation, and a restaurant and snack kiosk.

Sunday Times, March 31, 1985

## GEOGRAPHICAL RECORDS

In the last issue of the H.A.A. Journal (31) space was allocated for anyone to report new locality records. This step is certainly appreciated by all current and future herpetologists involved in research concerning the distribution of Reptiles and Amphibians in Africa.

Scientists experience an universal problem when collecting locality records in that valuable records were not documented properly and therefore prove to be of little value to him or her. In this regard one cannot stress the use of a code of minimum standards of documentation enough. Although the study of animal distribution involves a lot more than just a distributional record, an accurate record still is the basic data point. The researcher could always go back to that population which means something, rather than not even knowing of the existence of such a population. Therefore, I think it is practical to suggest that any amateur or professional herpetologist should concentrate to indicate the locality of the specimen as accurate as possible.

Surely there are as many versions of log-book keeping during a field trip as there are fieldworkers. However, most of the time we are not on an official collecting trip when discovering a new locality record and even if we are we do not always recognise the specimen as a new record. But if a collector keeps the following basic questions in mind he could make a valuable contribution to any collection.

1. **Micro-habitat.** Just make a few basic note about the micro-habitat the specimen was collected from.

2. **Locality.** Note the *farm name* or nearest farm name and add to it the district or the closest town. It is useful to note a few adjacent farm names just as a reference.

3. **Transportation.** Collecting a specimen is one thing but recognizing it from the rest in the bag at home or base camp is another. Therefore, make sure you "mark" the specimen in such a way that you could recognize it again.

In a later issue we will have a look at the basic preservation techniques. The next step is to identify your specimen *properly*, using recent scientific taxonomic studies related to the animal you collected. Remember to keep in mind that museum house excellent reference collections. Following the identification of the specimen (see later issues) the collector would like to pinpoint the locality. Basically we use two methods, to describe the locality. For both these methods one needs a good topographic map obtainable from the Government printer. It is suggested that you use a 1:50, 000

topographic map. However, 1:250,00 and 1: 500,00 topographic maps can also be used although you sacrifice accuracy.

A. Degree-Minute Method  
(Latitude - Longitude coordinates)

After locating the farm you collected on you read of the latitude in degrees and minutes from the horizontal axis and the longitude in degrees and minutes from the vertical axis. The locality is then written Farmname, 25° 10'E; 26° 20'S

## B. Locus System

This system was introduced by Davis, (1948) and is now used widely by most scientists plotting distributional records. Each degree-unit (1° x 1° degree-square) is designated by a four-figure number, a combination of the degree latitude and longitude as indicated at its top left hand corner (egs. 2926 in Figure 2). Each degree-unit is divided into four equal-sized (half-degree) units, A, B, C, D. Each of these is in turn again divided into four smaller units (quarter-degree) (26 x 26 km<sup>2</sup>) a, b, c, d. Depending on the detail needed, further divisions can be made by dividing each quarter degree into another 4 smaller units (eight degree) (676 km<sup>2</sup>) 1, 2, 3, 4. Therefore, each degree unit is subdivided into 64 sub-units of roughly equal size (169 km<sup>2</sup>). This method is valuable in planning systematic collecting of a certain area and makes plotting of records easy.

## Conversions

It may be necessary to convert your locality from Latitude/Longitude to Locus value or to find the limits of a locus in terms of quarter-degree subdivisions.

Table 1. This table facilitates the conversion from latitude-longitude coordinates to locus. Bloemfontein, for example, the locus is located in the 29° south latitude, 26° east longitude, within the quarter degree square "a" of the half-degree square "A" (= 2926 Aa).

Minutes latitude	Minutes longitude	Code
0 - 14	0 - 14	Aa
	15 - 29	Ab
	30 - 44	Ba
	45 - 59	Bb
15 - 29	0 - 14	Ac
	15 - 29	Ad
	30 - 44	Bc
	45 - 59	Bd
30 - 44	0 - 14	Ca
	15 - 29	Cb
	30 - 44	Da
	45 - 59	Db
45 - 59	0 - 14	Cc
	15 - 29	Cd
	30 - 44	Dc
	45 - 59	Dd



## Maps

The Government Printer will supply you with a catalogue from which you can order your maps.

- (a) 1: 500,00 maps portray 2°S X 5°E  
 (b) 1: 250,00 maps portray 1°S X 2°E  
 (c) 1: 50,000 maps portray 15'S X 15'E

I hope this explanation will encourage future collectors to use the reconized system. In this way you could make a valuable contribution towards mapping the Reptiles and Amphibians of Africa.

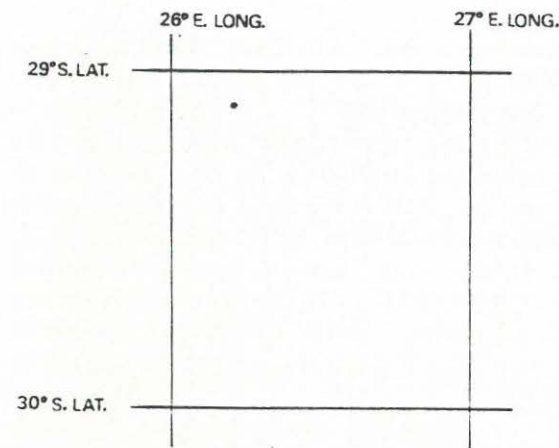


Fig 1. Bloemfontein located in the degree-square 29° south latitude and 26° east-longitude (29° 06'S; 26° 13'E).

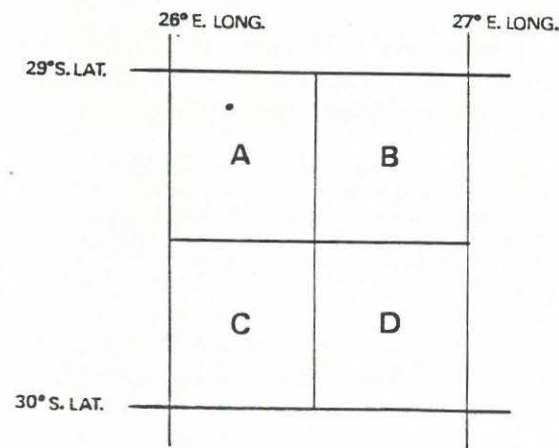


Fig 2. The degree-square is divided into four equal-sized (half-degree) squares (A, B, C, D). \* Bloemfontein: 29° 06'S; 26° 13'E.

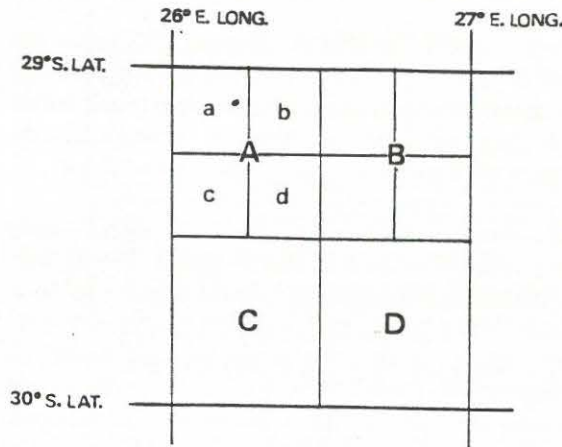


Fig 3. Each half-degree square is divided into four equal-sized (quarter-degree) squares (a, b, c, d). Bloemfontein locus: 2926 Aa.

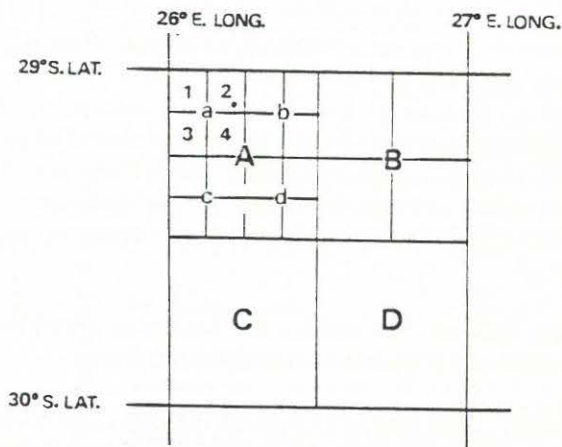


Fig 4. Each quarter-degree square is divided into four equal-sized (eighth-degree) squares (1, 2, 3, 4). Bloemfontein locus: 2926 Aa 2.

## References

DAVIES, D.H.S. 1948. Salaratic plague in South Africa: History of plague in man, 1919-43. *Ann trop. Med. Parasit.* 42: 207-217.

J.H. van Wyk

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### RECENT RELEASES

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## TURTLES OF VENEZUELA

by Peter C. H. Pritchard and Pedro Trebbi  
watercolors by Giorgio Voltoina

(about 250 pages, 8-1/2 by 11 inches, 34 maps and 48 full-page color plates)

THE BOOK. This outstanding new book will be the first in-depth treatment of a major South American turtle fauna. It covers all turtles known from Venezuela including the mata mata and other side-necks (11 species), tortoises, pond and land turtles (6 species) and the sea turtles (5 species), together comprising fully half of the turtle species described from the South American continent and all species recorded from Trinidad, Guyana, Surinam and French Guiana. The monograph is based on a study of existing museum specimens, an in-depth review of the relevant literature and, most important, the results of intensive field study by both authors in all parts of Venezuela. They made many original observations and discovered two new forms, described here for the first time. Following a discussion of the zoogeography of South American turtles there is an illustrated key to species in both English and Spanish. Each species account consists of a synonymy, followed by a diagnosis; a detailed description (including shell, soft parts, color and sexual dimorphism); and sections on size and growth; distribution and geographic variation; habitat; feeding; reproduction; economic importance; vernacular names; and additional notes where appropriate. There is also a comprehensive bibliography and list of locality records.

The book is beautifully illustrated. There are 48 full-page plates in color, 26 of which are original watercolors and the remainder a collection of 160 photographs of both turtles and their habitats. Samples of both are reproduced on the following pages. In addition, there are two distribution maps for each species: a spot map showing the detailed Venezuelan distribution and a map showing the continent-wide range.

THE ARTIST. Giorgio Voltoina, an Italian, was trained at the Liceo Artistico in Venice and, after emigrating to Venezuela in 1955, worked as artist and taxidermist for several natural history and academic institutions. His illustrations have appeared regularly in scientific publications and in high school and university textbooks, and include all vertebrate groups. Voltoina's drawings of the jaguar, giant armadillo and cock-of-the-rock were chosen for reproduction in a series of gold and silver medals commissioned by the World Wildlife Fund. His magnificent and lifelike watercolors of Venezuelan turtles will, we believe, set a new standard for comparison.

PRICES. Following the sample plates.

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## SYMPOSIA

## H.A.A.

ONE DAY SYMPOSIUM  
26 JULY 1985

Department of Zoology, University of Natal, Pietermaritzburg, South Africa.

## Theme

General Herpetology. Any topic related to herpetological research will be acceptable.

## Papers

Members and non-members are invited to submit, as soon as possible the titles and abstracts of papers they wish to present. Speakers will be allocated fifteen minutes for presentation. There will be opportunity for discussion after each presentation.

## H.A.A. General Meeting

A general meeting will be held to give members an opportunity to discuss the future organization of the association. Further details will follow.

## Accommodation

Dr. E. van Dijk is shopping around to get a worthwhile package deal from one of the hotels in Pietermaritzburg. Please contact him before you book.

## Symposium Organizer:

Dr. E. van Dijk  
Department of Zoology  
University of Natal  
P.O. Box 375  
Pietermaritzburg

## MASSASAUGA RATTLESNAKE SYMPOSIUM

Preliminary steps are underway to organize an Eastern States symposium on the massasauga rattlesnake. The scheduled dates are 15 &amp; 16 August 1985. The location will be the Jennings Environmental Education Center in Butler County, Pennsylvania.

Anyone interested in presenting research, status reports, or other pertinent information should submit a brief proposal to the address below. Some stipend money will be available to defer speakers' costs.

Due to the sensitive nature of the data being reviewed, the acceptance of symposium participants will be made by a panel. Please include a brief resume when sending for additional information to:

David E. Johnson  
Pennsylvania Department of Environmental Resources  
Jennings Environmental Education Center RD 1  
Slippery Rock, Pennsylvania 16057  
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(412)794-6011ANNOUNCING THE NINTH INTERNATIONAL  
HERPETOLOGICAL SYMPOSIUM ON CAPTIVE  
PROPAGATION & HUSBANDRY AT SANDIEGO,  
CALIFORNIA, JUNE 26-30, 1985

## CALL FOR PAPERS

All herpetologists are invited to submit for consideration the titles of papers they wish to present at the 9th International Symposium on Captive Propagation and Husbandry to be held at the University of San Diego in San Diego, California. A pre-day to the conference will take place at the Roeding Park Zoo in Fresno, California on June 25, 1985. Paper lengths may range from 20-40 minutes. A preliminary program will be established by April, 1985 so a 100-150 word abstract of a presentation should be submitted by contributors prior to 1 April 1985. Titles should be submitted as soon as possible. Final manuscripts should be submitted prior to 15 June 1985. Submit all program information to: Sean McKeown, Curator of Reptiles, Program Chairperson, Roeding Park Zoo, 894 West Belmont Avenue, Fresno, California 93728; (209) 488-1096.

## ABSTRACTS

REVIEW OF BONN SYMPOSIUM ON AFRICAN  
VERTEBRATES

An International Symposium on Systematics, Phylogeny and Evolutionary Ecology of African Vertebrates was held May 15-18, 1984 in Bonn, Federal Republic of Germany, to commemorate the 50th anniversary of the opening of the public exhibits of the Zoologisches Forschungsinstitut und Museum Alexander Koenig. Forty contributors from 14 countries presented papers. The travel expenses of the invited participants were reimbursed in part by a grant from the German Science Foundation. Karl-L. Schuchmann, Ph.D., Assistant Curator of Ornithology organized the symposium. Herpetologists who participated in the symposium, and the titles of their presentations, were:

Ulrich Joger. The African Gekkonine radiation — preliminary results on evolution and historical biogeography. (Bonn, F.R. Germany)

Barry Hughes. A systematic review of African Green Snakes of the genus *Philthamnus*. (Accra, Ghana)

E. Buffetaut. Zoogeographic history of African crocodilians since the Triassic. (Paris, France)

Wolfgang Boehme. Zoogeographical patterns of the herpetofauna of the African Sub-saharan savannah belt. (Bonn, F.R. Germany)

Hartwig Berger-Dell'Mour. Transition from normal to serpentiform appearance in the South African genus *Tetradactylus* Merrem, Gerrhosauridae, Sauria. (Windhoek, Namibia)

Jens Rasmussen. The retinas of some biogine snakes including a discussion of some evolutionary trends in advanced snakes (Caenophidia). (Copenhagen, Denmark)

Mills Tandy. Geographic variation in *Bufo blanfordi* Boulenger (Amphibia: Anura: Bufonidae). (Austin, Texas, U.S.A.)

Benedetto Lanza. Systematics and biogeography of the Somali amphibians and reptiles. (Florence, Italy)

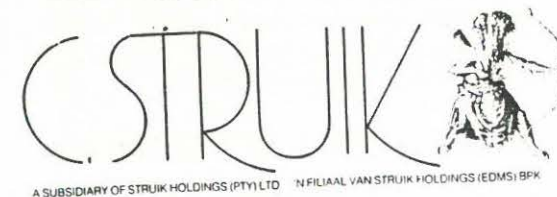
Scott Moody. The phylogenetic relationships and zoogeographic origins of the lizards of the infraorder Iguania (Agamidae, Chamaeleonidae and Iguanidae) inhabiting Africa and Madagascar. (Athens, Ohio, U.S.A.)

**Gas Bubble disease in the African Clawed Frog, *Xenopus laevis*.** John Colt, Teufel and Associates, 1303 Lake Boulevard, Davis, California 95616, USA; Kris Orwicz, Department of Mechanical Engineering, University of California, Davis, California 95616, USA and Dale Brooks, Animal Resources Service, School of Veterinary Medicine, University of California, Davis, California 95616, USA. **ABSTRACT** — Exposure of African clawed frogs (*Xenopus laevis*) to gas supersaturated water produced gas bubbles in the interdigital webbing, progressing to inflammation, hemorrhages, and erosion of the skin. Due to extensive formation of gas bubbles in the webbing and under the skin, the frogs floated prior to death. Death resulted from accumulation of gas within the vascular system and secondary bacteremia. Reducing the dissolved gas levels of the water resulted in a reversal of clinical signs and complete recovery in many cases. Bubble formation in the webbing of *Xenopus* resulting from gas supersaturation has been reported at one other location. Gas supersaturation may be a significant primary cause of "red leg" disease of amphibians in both natural and laboratory systems.

Journal of Herpetology, Vol. 18, No. 2, pp. 131-137, 1984

**A long term study of the tooth replacement phenomenon in the young green iguana, *Iguana iguana*.** L.W. Kline and D. Cullum, Department of Oral Biology, Faculty of Dentistry, University of Alberta, Edmonton, Alberta, Canada T6G 2N8. **ABSTRACT** — A study using 11 young green iguanas, *Iguana iguana* examined the growth of the animals, changes in the wave replacement of teeth, the increasing size of the teeth, and the posterior migration of tooth positions over a period of 2.7 years. The results supported the view that tooth replacement is closely related to growth. The teeth were measured regularly and demonstrated a smooth increase in width as the lizards grew. The tooth positions were found to migrate posteriorly thereby providing adequate space for the ever larger teeth replacing their smaller predecessors. These observations suggested that the wave replacement of teeth allows for adequate growth of the dentition in length and height to maintain teeth of a size in proportion to the overall size of the individual.

Journal of Herpetology, Vol. 18, No. 2, pp. 176-185, 1984



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For additional information on proposals see the December 1984 issue of *Herp Review* or write:

Dr. James Bacon  
Department of Herpetology  
Zoological Society of San Diego  
P.O. Box 551  
San Diego, CA 92112

### PUPILS FIND A HISSING SNAKE IN LIBRARY

Friend Correspondent

DEWETSDORP — Most school pupils are familiar with the expression "a snake in the grass", but finding a deadly serpent in the school library was a new experience for Tabbie van den Berg, who is in Std. 9 at the Christiaan de Wet High School here. The incident happened last week, when Tabbie asked the school librarian, Mrs Therese Steenkamp, what a rinkel was doing behind the door. Mrs. Steenkamp and Tabbie left the room immediately and went to seek help from woodwork teacher Mr. Johan Pieterse. After a fierce struggle, during which the snake was spitting and hissing continually, Mr. Pieterse and another Std. 9 pupil, Arthur Cremore, managed to kill it. No one knows how the snake got into the library, or how long it had been there.

The Friend, April 22, 1985

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Two recent reports show that exploitation of frogs in India and Bangladesh to produce frogs legs for the restaurant trade in many western countries and in Japan, is posing a serious threat to frog populations and to ecosystem stability in ricefields and natural wetlands in the subcontinent.

Charles M. Fugler reports, in the *Fisheries Information Bulletin* of the Bangladesh Fisheries Resources Survey System (June 1983), that the Indian Bullfrog *Rana tigrina* is the main target. The report is discussed in the 11 April edition of the *TRAFFIC Bulletin*. It speaks of the economic dependence of large numbers of people in Bangladesh on the frog export trade, which earned Bangladesh \$14.6 million in foreign earnings in 1977-1981. Because of this exploitation, wild populations of bullfrogs are becoming seriously depleted, particularly in the Sylhet and Mymensingh districts, where 80% of the export stock originates. There is a ban on collecting between 15 April-15 May there but this is largely ignored and does not cover the whole breeding season, which may last till July. Fugler suggests that a two-year moratorium to allow populations to recover may be the only realistic solution.

Herpetologist René Honegger, writing in a recent edition of *Tages Anzeiger* magazine, reports similar problems in India, especially in the marshes around Calcutta, Bombay and Hyderabad. He estimates the Indian catch at around 10,000 tonnes per year.

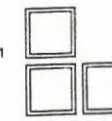
Research in China on a population of 12,000 frogs in a rice-growing area showed that they consume around 740,000 insects a day, most of which are potential rice pests. Frogs also provide a food source for many bird, reptile and amphibian species: their over-exploitation must inevitably upset the natural balance of wetlands. Frogs are very strictly protected in China for these very reasons. There is a strong case for using complementary conservation Conventions like CITES and Ramsar to foster an international approach to solving the problem elsewhere.

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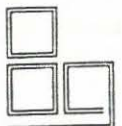
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G. Alexander, 92 Jan Hofmeyer A2, Westville 3630

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The Director, National Zoological Gardens of S.A., Boom Street, P.O. Box 745, Pretoria

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Mr. J.J. Snyman, P.O. Box 31270, Totvisdal 0134 Pretoria

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Mr. M. Griffin, P.O. Box 9557, Windhoek, 9000, Namibia

Mr. M.N. Enright, 1007-701 Don Mills Rd, Toronto, Ontario, Canada.

World Snake Studycenter, Wlbrunnenstrasse 39, (Haus Belvedere), CH-6314 Unterageri, Switzerland.

Mr. C.J. Leonard, Dept. Zoology, University of the Western Cape, Private Bag X17, Bellville 7530, R.S.A.  
Dr. A.J. Wright, 401 Salbany, 50 Albany Grove, Durban 4001, R.S.A.

Mr. P. le F.N. Mouton, Dept. Zoology, John R. Ellerman Museum, University of Stellenbosch, Stellenbosch 7600, R.S.A.

Mr. D.P. Mostert, Dept. Zoology, University of Stellenbosch, Stellenbosch 7600, R.S.A.

Mnr. P. Erasmus, Posbus 16624, Pretoria Noord 0116, R.S.A.

Mnr. J. Williams, Afd. Natuurbewaring, Posbus 384, Pretoria 0001, R.S.A.

Mr. B.S. Rubidge, National Museum, P.O. Box 266, Bloemfontein 9300, R.S.A.

The following members have joined following an article in "Herpetological Review" giving details of the H.A.A.

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W.E. de Ruyter, 9-11 Margriet Str: 4571 VS Axel Netherlands

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Larry Radford, 60 Erskine Avenue Buffalo, New York 14215 U.S.A.

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## TAKING STOCK

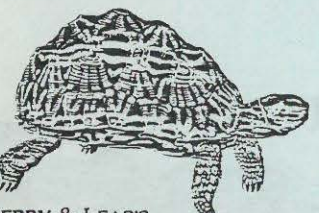
A NATIONWIDE stocktaking project has been started by the Department of Environmental Affairs to determine which areas in South Africa should be protected for all time against development.

It will produce a national atlas of such areas and establish a databank of all sensitive areas for the information of decision makers, town and regional planners, scientists and others.

Miss Liz Marrao, of the Government-appointed National Committee for Nature Conservation, said the committee was responsible for submitting a national plan for nature conservation and the atlas project would be a vital part in its compilation.

One use for the atlas will be to provide overlays for regional maps so that regional planners, such as highway designers, can see immediately what to avoid.

Anybody wishing to help, supply information or suggest sites should write to: National Plan for Nature Conservation, Private Bag X447, 0001 Pretoria.



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**SOWERBY & LEAR'S  
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This book is generally regarded as the finest atlas of turtle illustrations ever produced, drawn by the famous nineteenth century artists James de Carie Sowerby and Edward Lear. The short text is by John Edward Gray. Originally published in London in 1872, the book was reprinted by the Society for the Study of Amphibians and Reptiles in 1970 but this edition was sold out some years ago. The reprint includes an extensive introduction by Ernest E. Williams, of Harvard University, detailing the history of the book and its authors and artists, and equating the scientific names to current nomenclature.

The atlas includes 61 black-and-white plates of turtles, depicting species from all parts of the world. The book measures 8 1/2 by 11 inches (about 22 by 28 cm) and is clothbound. Copies can be purchased for \$20.00 from the SSAR Publications Secretary, Douglas H. Taylor, Department of Zoology, Miami University, Oxford, Ohio 45056, U.S.A. The price includes postage in the U.S.A.; only the additional surface mailing costs will be charged for non-U.S.A. shipments. Payments from overseas should be made in U.S.A. funds, by International Money Order, or may be charged to MasterCard or VISA (include account number and expiration date of credit card).

SSAR also publishes *Journal of Herpetology*, *Herpetological Review*, *Facsimile Reprints in Herpetology*, *Herpetological Circulars*, *Catalogue of American Amphibians and Reptiles*, *Contributions to Herpetology* and *Recent Herpetological Literature*. Inquiries about membership in the Society or purchase of back issues can be addressed to Dr. Taylor.

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## THE CROCODILE FARMERS ASSOCIATION OF ZIMBABWE (CFAZ)

P.O. Box 2569, Harare, Zimbabwe

There are five commercial crocodile farms in Zimbabwe. Four are situated on the shores of Lake Kariba, whilst the fifth is a well known tourist attraction at Victoria Falls. All are founder members of CFAZ under the chairmanship of J.S. Brown. The association was formed to promote the well being of the Nile crocodile through a pooling of expertise and seeks to promote a better understanding of the biological and economic importance of the reptile through tourism, education and research and to help control and monitor the trade in crocodile products.

Worldwide poaching, unchecked hunting, smuggling of skins and man's destruction of the natural habitat has resulted in all species of crocodile, caiman and alligator being listed as "seriously threatened with extinction". The commercial farmers' approach to this problem is to recognise that there is a growing demand for skins and crocodile products and it is preferable that the skins come from carefully monitored farmed crocodiles whilst attempts are made to regenerate and stabilise the wild populations. Persons wishing to know more about the aims and objectives of CFAZ should contact the Secretary at the above address.