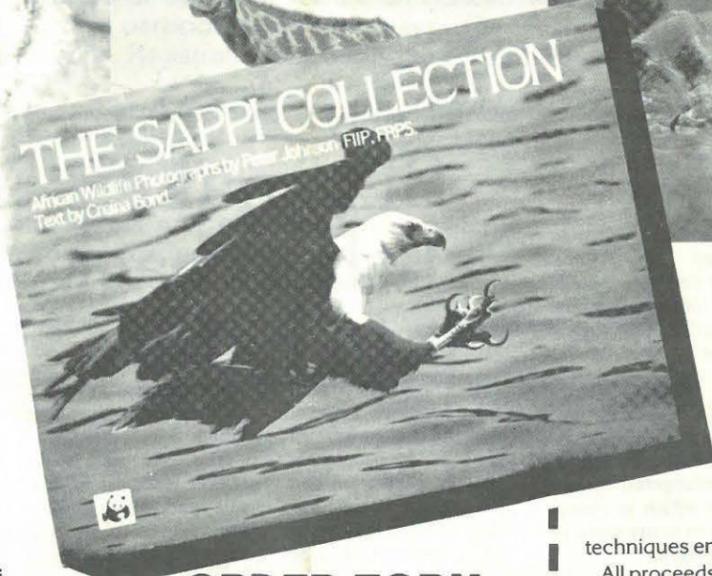




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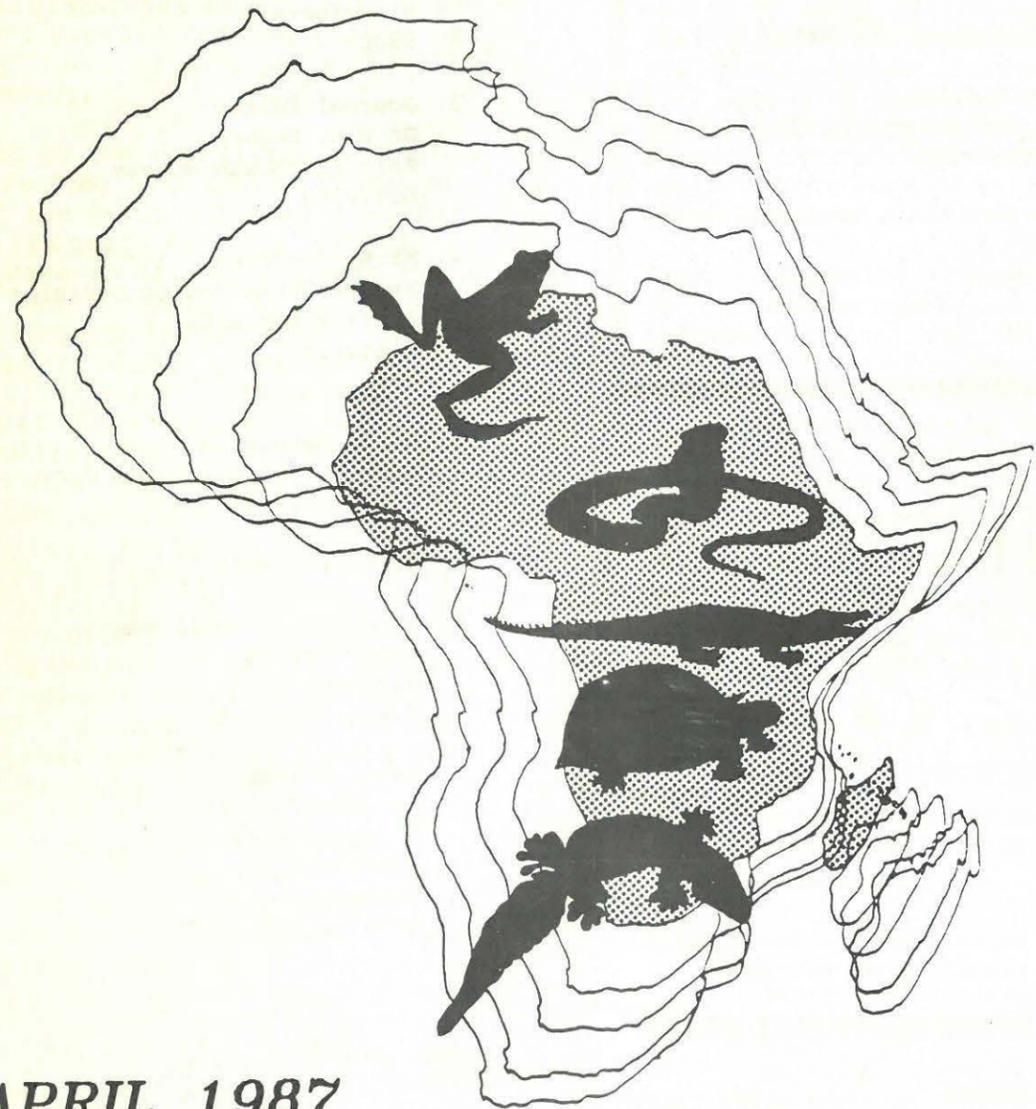
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H.A.A.
NEWSLETTER 9

ISSN 0257-7054



APRIL 1987

Herpetological Association of Africa

HERPETOLOGICAL ASSOCIATION OF AFRICA

Founded 1965

The H.A.A. is dedicated to the study and conservation of African reptiles and amphibians. Membership is open to anyone with an interest in the African herpetofauna. Members receive the *Journal of the Herpetological Association of Africa* (two issues per year) and the *H.A.A. Newsletter* (three issues per year).

Subscription rates 1986

African members — R9,00
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For information about H.A.A. membership, write to
Mr R. Douglas
National Museum
P.O. Box 266
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South Africa



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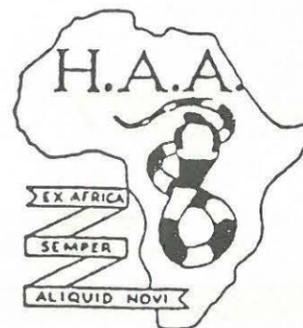
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EDITORIAL

On the first day of the new year one usually look back at the silhouette of the past year. With your eyes fixed on the distant horizon my mind tells me about all my achievements but my conscience whispers that I could have done much more. It is then usually in this atmosphere that I set my goals for the year ahead. Needless to say at the end of the year I usually realize that my new year resolutions were far to ambitious.

Going by the activities of the HAA during 1986 I am convinced however, that the Association will achieve all its goals for 1987. Indeed, the HAA have an interesting year ahead. The HAA Symposium to be held at Stellenbosch is rapidly turning into a major event. Hopefully this meeting will stimulate the herpetology minded people to communicate more freely and to do so even more regularly in future. At the same venue the HAA will hand the Geometric Tortoise Fund to the Nature Foundation of Southern Africa. Certainly a milestone in the history of the HAA! This year will also bring another General Meeting (Stellenbosch symposium venue), also a rather uncommon event in the past. The committee reports should give the members insight into the activities of the first HAA committee. A new committee will be formed and hopefully keep the HAA on the road to the summit. Maybe they will discover a few new short cuts! Together with all this, the Newsletter should become a more regular feature especially with a new Editor. The HAA Journal may just receive more high level scientific articles to become a regular feature as well. It just seems logical that the new committee with new initiatives and a fresh spirit will have many more surprises for each HAA member.

It is with some sadness in my heart that I give you all the prospects for 1987/1988 since I will not be part of the "organizers" any more. This also means that the Newsletter in your hand is the last posted by me to your address. I have decided to step down as Chairman and Newsletter Editor of the HAA. It must sound like some sort of scandal! Unfortunately my postgraduate research commitments limits my time, available to serve the HAA fully. This inevitably could eventually lead to dissatisfaction from your side and frustration from my side especially when someone out there in the ranks of the membership could devote much more time to the HAA.

I would, therefore, like to make use of this opportunity in thanking everyone for the support I received during the past two years. I have no doubts in my mind when I say that the HAA is very close to the summit, in being a well organized active and involved association. It is just a matter of commitment and resource utilization.

I wish the HAA and its new management a successful and prosperous future ahead.

J.H. van Wyk
CHAIRMAN & NEWSLETTER EDITOR

Endangered species poster available

An updated "Endangered and Vulnerable Species of Southern Africa" poster has been produced by the Endangered Wildlife Trust.

The poster features 13 species — five mammals, seven birds and one insect — which are the focus of trust projects. Monies from the sale of posters will go to conservation of endangered, vulnerable and rare species. To order, send R3,36 (includes GST) to the Endangered Wildlife Trust, Private Bag x11, Parkview 2122. Phone (011) 486-1102.

INSTITUTIONAL NEWS

The National Museums and Monuments

Bulawayo, ZIMBABWE

Dr. D.G. Broadley reports

1. Current research projects:
2. a. Geographical variation in *Gerrhosaurus major* (Sauria: Cordylidae). D.G. Broadley
- b. Caudal autotomy in the genus *Natriciteres* (Serpentes: Colubridae). D.G. Broadley
- c. A check-list of the reptiles of Tanzania. D.G. Broadley & K.M. Howell (University of Dar es Salaam)
- d. Amphibia Zambesiaca (continued). J.C. Poynton & D.G. Broadley
- e. Reptilia Zambesiaca. D.G. Broadley
- f. A revision of the African species of *Naja* (Serpentes: Elapidae). D.G. Broadley.

3. Recent publications:

1985.
Geographic Distribution:
Serpentes - *Mehelya capensis unicolor* (Unicolor File Snake). *Herp. Rev.* 16(2):60

1986a.
Geographical Distribution:
Amphibia, Sauria, Hyperoliidae:
Hyperolius parkeri rovumae. *J. Herpet. Assoc. Afr.*, 32:30

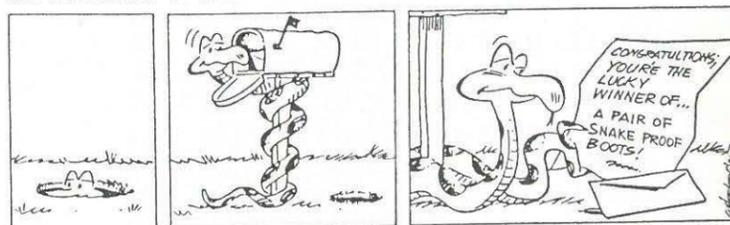
1986b.
Geographical Distribution:
Reptilia, Sauria, Scincidae:
Mabuya megalura. *J. Herpet. Assoc. Afr.*, 32:30.

4. Other news:

The Department suffered a grievous loss with the death from cancer of Mrs Barbara L. Bennefield on 28th May 1986. She was a very versatile and capable Technical Officer and was actively engaged in research on tortoises.



THE ADVENTURES OF SPOT



NEW STATE MUSEUM ACRONYM

As from 12 November 1986 the State Museum uses the international acronym **SMWN** for all its collections. Catalogue numbers of reptiles and amphibians will now consist of this four letter code plus the number. (E.g.: SMWN 5624 instead of previously SM-R 5624)

This change also affects already catalogued specimens without changing their actual catalogue number.

H. Berger-Dell'mour WINDHOEK

A Suggested Coding System for Southern African Reptilian and Amphibian Taxa

In a time of increasing computerisation, where museum collection data are being stored on electronic databases, and vast computer-aided literature search programs have been developed, an effective and flexible coding system is essential.

This article wants to induce the necessary brain-storm in all competent cerebral systems of our herpetological community, so that we end up with a useful concept.

We should try to learn from the shortcomings of the bird system and construct ours more flexible.

What are the requirements?

1. Representation of a "Natural System"

Within an existing herpetological database, we want to be able to search for a related group of organisms together (e.g. all subspecies of a species or all colubrid snakes from a certain area etc.). This means that we want to mirror the true relationships in our code system.

2. Codes for new taxa to fit into that "Natural System"

In case of a newly described genus/species/subspecies we want to be able to assign to it a code number next to that of the nearest related taxon.

3. System flexible for transfers from one higher category to another

If a subspecies gets transferred from one species to another, our coding system must not collapse.

4. Increase/decrease of categories not to obliterate the natural arrangement

If a genus; gets split up or if two genera are joined, the relevant code numbers should still represent this situation.

Based on the fact that we possess ten fingers (apart from the few lucky people that were born with 12 and the few unlucky but highly respected ones who had themselves bitten by a puffadder), which consequently resulted in us using a decimal calculating system, I propose to introduce a four(five)-digit decimal code system where the 1000 value represents the family, the 100 the genus, the 10 the species and the last (1) the subspecies.

Any "0" would stand for "no more detailed information available" (in our example, 4000 stands for Lacertidae in general) or, in the case of a monotypic species, it will automatically be the last digit. A "1" as the last digit may stand for the nominate subspecies.

Even though computer filing at the Lower Vertebrate section of the Windhoek Museum has not been done to any reasonable extent, a great part of the Lacertidae have been dealt with, and the code numbers used may serve as an example.

Code	Name
4000	Lacertidae
4100	Aporosaura
4110	Aporosaura anchietae
4200	Meroles
4210	Meroles ctenodactylus
4220	Meroles cuneirostris
4230	Meroles micropholidotus
4250	Meroles reticulatus
4270	Meroles suborbitalis
4280	Meroles knoxii
4300	Heliobolus
4310	Heliobolus lugubris
4400	Pedioplanis
4410	Pedioplanis breviceps
4420	Pedioplanis namaquensis
4430	Pedioplanis undata ssp.
4431	Pedioplanis u. undata

- 4434 *Pedioplanis undata gaerdisi*
 4435 *Pedioplanis undata rubens*
 4460 *Pedioplanis laticeps*
 4480 *Pedioplanis lineo-ocellata* ssp.
 4481 *Pedioplanis l.-o. lineo-ocellata*
 4482 *Pedioplanis lineo-ocellata pulchella*
 4483 *Pedioplanis lineo-ocellata inocellata*
 4500 *Lacerta*
 4600 *Tropidosaura*
 4700 *Nucras*
 4710 *Nucras intertexta*
 4732 *Nucras taeniolata ornata*
 4750 *Nucras tessellata*
 4900 *Ichnotropis*
 4910 *Ichnotropis squamulosa*
 4930 *Ichnotropis capensis*
 4950 *Ichnotropis grandiceps*

You will realise from this list that I have only assigned codes to species and subspecies occurring in SWA/Namibia. Should we want to incorporate all Southern African species, it would be quite easy.

Nucras t. taeniolata would by definition become 4731, *Nucras lalandii* would have to be given a number not within the *tessellata* group (probably 4980), *Pedioplanis burchelli* might be assigned the number 4470 (if we think that it shows affinities to *Pedioplanis laticeps*) etc.

We cannot go one step further and include all African species, because there are more than ten genera to consider. If we wanted to do that, we would have to use 2000 numbers for Lacertidae. If we were to cater for all African lizard taxa, a fourth digit system for the suborder lacertilia might become too tight: presumably at least the Cordylidae and the Gekkonidae would have to be given 2000 figures space as well. With the Anguids and Iguanids (we would not like to omit Madagascar) joining the club, we run out of space. A way out would be to keep

all Iguania closely together, using one 1000-block for both chamaeleons and leguans, the next one for agamids. Monitors might be joined up with the anguids, both having rather few representatives in Africa. But here we stop obeying our first law which stipulates that natural relationships should be represented in our coding system.

Of course, all reptiles and amphibians together cannot be fitted in a four-digit system anyway. For practical reasons, this does not seem so terrible. Tortoises, crocodiles, frogs and snakes could be kept in separate files with a special identification letter or digit (which will in fact increase the code number to a five digit unit).

But bearing in mind that our system should be expandable and flexible, we might consider to use a five-digit system right from the start. The various 10 000 categories could then be generally used for different classes (e.g. 10 00 - 30 000 for Amphibia, 50 000 - 90 000 for "Reptilia" or "subclasses" (50 000: Chelonia, 90 000: Crocodylia) or orders (60 000 - 80 000: Squamata) and suborders (60 000: Ophidia, 70 000 - 80 000: Sauria & Amphisbaenia).

If we really knew what the natural system was, we could create a coding system that complies with our "first commandment", i.e. representation of relations between systematic categories. (Is it theoretically possible to express a systematic distribution in a string of numbers?)

In some cases this might seem extreme: should we really assign a Robert's bird number to the crocodiles? Here we would have to compromise if for no other reason than that croc's are as yet still housed in the "lower" vertebrates' sections of museums ...

In order to obey the second commandment, we just have to leave big enough gaps between our categories. If I were to describe a new species of the *Pedioplanis undata* group from the Namib (which incidentally I am), I would be lucky to have the species code 4440 still open. For a new member of the *Meroles cuneirostris* group, there would still be 4240 available. But not for two new species of that group 4250 is already occupied.

Again, 5-digit system will be more generous.

Do we prefer stability over obeying our first commandment?

For a coding system to comply with the third and fourth commandment, we will probably have to accept changes of numbers anyway:

If *Pedioplanis* was to be further split up into two genera (I sincerely hope it won't) there would be no genus code available.

In these cases one might compromise and decide that 4410 - 4480 is used for *Pedioplanis laticeps* that is raised to generic level we cannot leave it at 4460 without obliterating the natural relationships.

When *Heliobolus* and *Pedioplanis* were still "Eremias", one might have grouped *E. lugubris* on one end of the genus, because it had been treated as subgenus for some while, but there are plenty of examples where whole taxonomic systems changed in a totally unexpected way. Remember, *Atractaspis* even switched families, which would mean a change of the first digit in our system.

While anticipating some of the problems, I must say that the rigid type of system like it is used in birds appeals less to me than the one where code numbers change. (Incidentally, bird-numbers in Southern Africa are not sage from being changed, too ...)

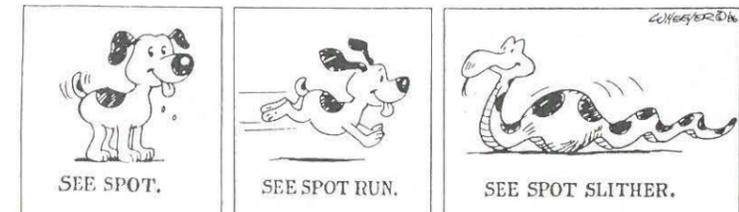
We have generally accepted that names (from subspecies to families!) change constantly. We should probably also provide for a buffered coding system that handles changes of numbers with the least damage. If somebody was to shift a species from one genus to another, he would have to announce the new relevant code number in his same publication.

Curators would either have a choice to ignore this change (as they have today with changes of names) or to update their files. This seems to become increasingly easy with modern databases. (Just make sure that you buy the right software with your computer and don't end up putting your data into an insufficient system as I am doing right now).

As the herpetological species code system should be worked out by the time our multi-authored annotated checklist goes to print (hopefully in early 1988), I suggest that the HAA newsletter is **now** used as a forum for criticism to the above suggestions and of presentation of own ideas. If all goes well, we should come forward with a product that meets everybody's needs and provides for future electronic developments.

Hartwig Berger-Dell'mour
 State museum Windhoek
 P.O. Box 1203
 WINDHOEK
 Tel.: (061) 293370

THE ADVENTURES OF SPOT



The occurrence of Cape Wolfsnake (*Lycophidion capensis*) in rural area
Location: Kilner Park area, Pretoria
(Silverton 2528CB)

Since I started collecting snakes in 1979, I was also interested in specimens found dead on the roads.

As I use the road in front of our home more often than any other road, I found it quite interesting that the snake that I have yet found in this area that had fallen victim to cars, the Cape Wolf Snake is the most common of them all. Through the years I have found several.

In January 1986 my mother accidentally stepped on one in our back yard. The garden boy killed one and I found a dead one in the street.

Most interesting were the two Cape Wolf Snakes that I found dead in the street on 21 July 1986. They were within one metre of each other, if you could assume that these two were male and female, then I would suggest that these warm winter days would be the breeding season. Both were adults and the one in front slightly bigger than the other. As their bodies were badly mutilated, I could not make out the sex of either.

On 23 September 1986 at about 18h00

TORTOISES

Two Tortoises (*Geochelone pardalis babcocki*) were foraging amongst some aircraft wreckage near Komatipoort when suddenly one rolled over onto his back. "Wat on earth are you up to?" asked the other. "Oh", retorted the first tortoise, "I thought you said you wanted to see some-more-o-my-shell!!"

Barry Porter, Richmond, NATAL

I found one in our back yard on the lawn. The snake was killed by a cat. It was a male specimen measuring 30 cm. As its head had been chewed off, I couldn't measure its full length. I took this specimen to Mr W.D. Haacke at the Transvaal Museum (TM 65130) on 24th September.

I have not yet had the luck to find a live snake. There is a small stretch of field in front of our home. I won't be surprised if this field is a natural habitat and a last stronghold of these snakes in this area.

The only other snake I occasionally find here is the Brown House Snake (*Lamprophis fuliginosus fuliginosus*).

C.J. van der Linde
40 Matterson Road
Kilner Park
Pretoria
0186

A further observation of possible envenomation by *Philothamnus natalensis*

A 280 mm specimen of *Philothamnus natalensis* was observed to catch a common gecko just in front of its back legs. The gecko was far too large for the snake to swallow but the snake continued to hold on to the gecko. The snake moved its mouth up and down the gecko's body "chewing" continuously. I observed this "chewing" for a while and then left, only to discover that the following day the gecko was dead.

On closer inspection of the gecko I noticed no real damage and could only draw the conclusion that it must have died from envenomation. The snake only held onto the gecko with its mouth, thus constriction can be ruled out.

CRAIG SMITH
WESTVILLE NORTH
DURBAN

A New Regional Association formed

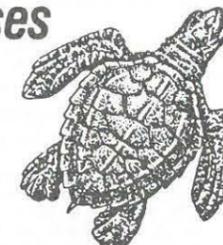
On the 18th April 1986 the EAST RAND HERPETOLOGICAL ASSOCIATION was founded in Kempton Park. The main aims and objectives in establishing this new association are based on "CONSERVATION BY EDUCATION". These aims will be achieved through an educational awareness to members, the general public and young people in particular. It is also the firm commitment of the founder members to obtain closer co-operation and understanding between amateur and professional herpetologists as well as other naturalists. It is hoped to bring them together in a common cause to further conservation, captive husbandry and a scientific knowledge of reptiles and amphibians.

These objectives are being applied by holding regular monthly meetings comprising of: - lectures and talks, field trips, film shows and a local as well as international interchange of information.

Further details can be obtained by writing to,

THE SECRETARY
EAST RAND HERPETOLOGICAL ASSOCIATION
P.O. BOX 10743
KEMPTON PARK
1630

Turtles, Tortoises and Terrapins



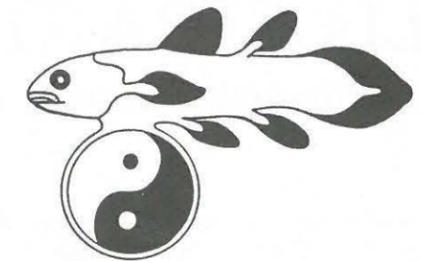
Fritz Jürgen Obst

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ILLUSTRATORS AND ARTISTS

of South African Insects, Reptiles, Shells and Fish: Pre-1900

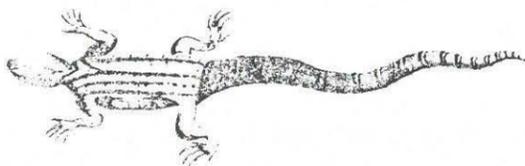
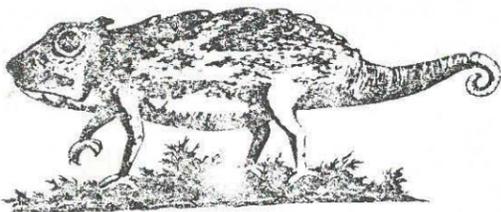
FRANK R BRADLOW

It is easy to understand why artists of ability were fascinated by diverse animals, large and small, birds and flowers. Few artists, however, felt the same attraction for insects, even colourful butterflies and moths (the *Lepidoptera*), or reptiles. Nor did they feel attracted by shells, of which the conchologists were largely forced to make their own depictions; or of marine creatures, which living in an unseen ambience of their own, were elusive and difficult to paint, except in death.

Nevertheless these creatures merit separate treatment in this series of articles on the natural history painters and illustrators of South Africa. It is not easy to find pre-twentieth century South African illustrations, paintings and drawings of these varied zoological creatures. These illustrations are usually buried in the pages of the transactions of learned societies, such as the Entomological Society, or in rare books of natural history. There are few great names among the artists who made these illustrations, which were drawn with little thought of artistic creativity, but with the accent on scientific exactitude for identification purposes.

These illustrations are usually "accompanied by text describing the appearance, habits, life cycle, food and habitat" of the insect, reptile or marine creature; and such a text rarely makes popular reading. Furthermore, a good many people would probably not agree with Handasyde Buchanan, when he writes that "insects - even spiders and beetles - are basically attractive things when illustrated". It is not, in addition, easy for any artist to depict the grace of movement of, for example, a butterfly, a fish or even a snake, with the result that the illustrations we do see, tend to be lifeless. Then again, because insects are small, different species of creatures such as butterflies, for instance, are often grouped on one page in

a somewhat dull and artificial manner, which may be useful to the scientist, but unexciting to the lay person.



Lizards by Heinrich Claudius. Water-colour in Africana Museum, Johannesburg

H Claudius fl 1683-1686

Heinrich Claudius has already been mentioned as an animal painter¹ and as a botanical painter². He also painted South African birds. A German apothecary-cum-physician from Breslau in Silesia, he had been sent to the Cape to collect medicinal herbs. He accompanied both Olaf Bergh's and Simon van der Stel's expeditions to Namaqualand in 1683 and 1685. Many of the drawings he made on these journeys are of insects, fish and reptiles. In the portfolio of *Claudius water-colours in the Africana Museum* published in 1952 there are five illustrations of various insects, reptiles or fish: a caterpillar of the saturniid moth; snakes, including a yellow cobra; lizards; a chameleon and an eel and a yellow-fish. These must be regarded as probably the earliest depictions of South African reptiles, fish and insects (). They are accurate, but hardly artistic, portrayals.

ANTIQUES IN SOUTH AFRICA, 1986



PUBLICATIONS OF THE SOCIETY FOR THE STUDY OF AMPHIBIANS AND REPTILES

Publications of the Society may be purchased from the Publications Secretary, Douglas H. Taylor, Department of Zoology, Miami University, Oxford, Ohio 45056, USA. Prices are effective as of January 1, 1986 and subject to revision. Please make checks payable to "SSAR". Prices include shipping charges (book rate) within the USA; all overseas orders will be billed only for the additional postage charges. Publications sent at customer's risk; however, packages can be insured at customer's cost. Overseas customers must make payment in USA funds, by International Money Order, or by MasterCard or Visa (in which case account number and expiration date must be provided). Items marked "out of print" are no longer available.

HERPETOLOGICAL CIRCULARS

Miscellaneous publications of general interest to the herpetological community. Issued irregularly and by subscription. All numbers are paperbound as issued.

No. 1. *A Guide to Preservation Techniques for Amphibians and Reptiles* by George R. Pisani, 1973. 22 p., illus. \$2.00.

No. 2. *Guia de Tecnicas de Preservacion de Anfibios y Reptiles* by George R. Pisani and Jamie Villa, 1974. 28 p., illus. \$1.00.

No. 3. *Collections of Preserved Amphibians and Reptiles in the United States* compiled by David B. Wake (chair) and the Committee on Resources in Herpetology, 1975. 22 p. Out-of-Print.

No. 4. *A Brief Outline of Suggested Treatments for Diseases of Captive Reptiles* by James B. Murphy, 1975. 13 p. \$2.00.

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TURTLES ALONG THE EASTERN CAPE COAST?

by G.E. Wendt

Turtles are among the largest reptiles on earth and are considered a delicacy in many parts of the world. Since the 17th century turtles were captured for food and their eggs dug up by the thousands. This led to a depletion of turtle populations. The eggs of all species are eaten, while soup is made of the flippers and tails of Green Turtles - all good protein sources. In Trinidad about 20-30% of the nesting Leatherbacks are killed by local villagers each year for their meat and oil; and the Hawksbill is caught for its shell, the plates of which are the tortoise shell used so extensively in arts and crafts.

Turtle research began in the early 1900's with a Danish expedition to the West Indies tagging a few turtles in 1915. Australians spent one season tagging Green Turtles on Heron Island in 1933, and in 1953 Dr Tom Harrison of Sarawak commenced the first serious tagging programme. None had much success until 1955 when Dr. Archie Carr of Florida started to tag the Green Turtles nesting on the only rookery left in the Western Caribbean.

The Natal Parks Board initiated the world's third major tagging programme in 1963 under Dr George Hughes. The tagging of adults and marking of hatchlings has continued since then. Adult Loggerheads are marked with a monel metal tag on the trailing edge of fore-flipper and the hatchlings are notched in a specific marginal shield denoting the year in which they hatched. Adult Leatherbacks are tagged on the inside trailing edge of the hind-flipper.

In northern Natal, adult female

Loggerheads and Leatherbacks start emerging to lay eggs in Spring and carry on throughout the Summer. Approximately two months after the eggs are laid, the hatchlings emerge and scramble down to the sea. Those that survive the initial onslaught of predators, swim out to the Agulhas Current and alternately swim, feed and drift along around the Indian Ocean. It is in this manner that they pass along the Eastern Cape coast, perhaps 30-40 kilometers offshore. Unfortunately, however, some get caught up in currents and winds that bring them into Algoa and St. Francis Bays. The temperature in the coastal waters is approximately 7-10°C colder than the Agulhas Current and the little creatures are stunned by the cold water and wash up onto the beaches.

The author is at present starting a study to determine how many hatchlings are stranded annually along the Eastern Cape coast. Appeals for help from the public have been made via the newspaper and posters. Any live hatchlings picked up off the beaches and brought to UPE will be kept in special tanks at 25°C, given necessary medication, weighed, measured, fed and returned to the Agulhas Current when strong enough. Any hatchlings brought in will be weighed and measured and checked for markings. The time and place the hatchlings are found is also important. The information gathered should tell us how long it takes the hatchlings to travel this far down the coast and could give an indication of the number of hatchlings passing the Eastern Cape coast every year.

Information on adult turtles sighted at sea would also be welcome. Two species generally occur along this coastline. The Leatherback can easily be distinguished from the Loggerhead in that it has a "leathery" skin with longitudinal ridges on its shell rather than the

scales of Loggerheads, Greens and Ridleys. Time and place of siting are important as well as any visible tags or markings but live turtles should be left at sea unharmed.

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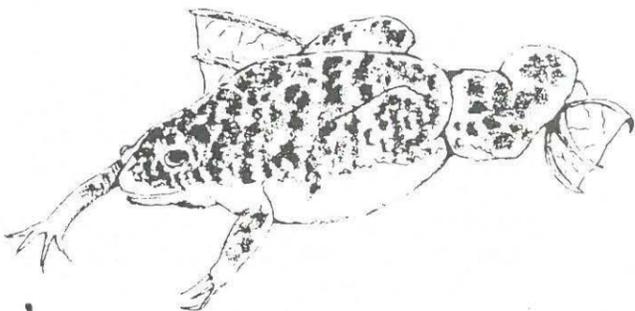
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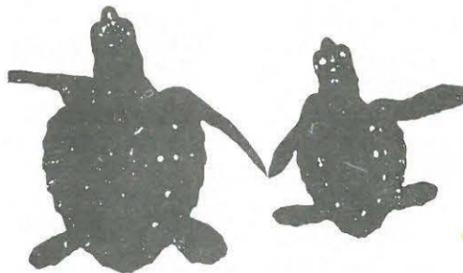
G.E. WENDT, Dept of Zoology, Univ. of Port Elizabeth, P.O. Box 1600, Port Elizabeth 6000.

A Beginner's Guide to Keeping Frogs and Lizards

by
C.H. Keeling



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Lizards and frogs have had a limited following as pets for many years now — this following is expanding.

This book is aimed at the beginner who is considering keeping these animals for the first time, although it will also be of interest to the more experienced keeper.

In it the author first considers just what frogs and lizards are and distinguishes them from the other amphibians and reptiles. He continues to describe how to house, feed and care for the majority of species, then goes on to describe a number of species which are offered for sale in the United Kingdom and which are suitable for the novice to keep. The book is illustrated with line drawings of the majority of the species described.

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Two turn backyard into mass of kermits

By Greg Roberts

BRISBANE: Half a million frogs owe their lives to a Brisbane brother and sister who have converted their backyard into a seething mass of spawn in the interests of nature conservation and to beat back the cane toad.

Martin and Hilary Boscott, both professional artists, already this summer have bred 100,000 tadpoles in their yard.

People are flocking to the Boscott home from as far away as Northern NSW and Cairns to take advantage of the seemingly bottomless pit of budding kermits.

In recent weeks, 250 people - from all walks of life - have inquired about putting more frogs into their lives.

"Go forth and multiply," is the catchcry.

The Boscotts are convinced that the decline in Queensland's native frog population in recent years is due to predation by that unsightly introduction from South America: the cane toad.

They have taken it upon themselves to correct the imbalance by establishing their own "captive breeding program" of green tree frogs.

Ms Hilary Boscott said that about five years ago the family noticed up to 100 frogs congregating around the swimming pool, while surrounding backyards had none.

"It seems they thought we were the only watering-hole for miles around," she said.

Because of the well-documented decline of the big green frog, familiar to generations of Brisbanites, they began raising tadpoles by feeding them boiled lettuce and releasing the baby frogs.

One thing led to another and today, 500,000 frogs later, the backyard of the St Lucia home is filled with buckets, children's paddling pools and other receptacles.

Ms Boscott delicately explained how it was done.

With her brother, she emerges on rainy evenings and quietly stalks oblivious pairs of mating frogs perched around the edge of the pool.

Taking great care not to unduly disturb the frogs, she puts the couples into a covered receptacle. During the night they lay their eggs and are released the following morning.

"It's a lot better than spending days, weeks sometimes, getting all the tadpoles out of the swimming pool," Ms Boscott said.

"The whole thing has generated an enormous feeling of nostalgia. There are people who've come to us who haven't seen a big green frog for 30 years and children who've never seen a tadpole.

"The very young and the very old are the people most interested.

"We give them a sheet telling them how to raise tadpoles, how to improve their garden for frogs, that sort of thing."

The curator of amphibians at the Queensland Museum, Dr Glen Ingram, described the Boscotts as "folk heroes".

"They are certainly having an effect on the resurgence of the frogs in the Brisbane area," he said. "What's more, they are contributing greatly to a very obvious renewal of public interest in the animals."

From A.R. Wood for H.A.A. Newsletter

Advertisement Section

This space is provided for the purpose of disposing of unwanted surplus items, particularly captive bred animals. Collecting of any wild animal for the purpose of sale is discouraged by the H.A.A.

Ads in the HAA Newsletter are run free of charge for HAA-members Non-members, however, will be charged R2 per line. Any ad may be refused at the discretion of the Editor

Editor

Husbandry Notes

By popular demand I have decided to initiate a section dealing specifically with the husbandry of captive reptiles and amphibians.

Notes concerning any aspect of successful exhibit design, techniques for maintenance and breeding, egg incubation, and rearing of young are acceptable.

Reproductive notes should stress the actual methods and specimen manipulation involved but may also include observations of behaviour growth and statistical data.

Longer husbandry manuscripts should be divided into appropriate sections including literature cited. Black and white photo's and line drawings are acceptable.

Editor.

Questionnaire Results

During 1985 I decided to issue a short questionnaire to all the HAA members. The main purpose of the questions were to enquire from the members whether they receive value for their money. Moreover information regarding the interests of HAA members could make it possible to initiate communication among members. Finally, any Haa management could use this information to ensure a better service to its members.

I sincerely hope that in future the HAA membership will more often get the opportunity to tell the management what they thought of their efforts.

In total: questionnaires were issued to both African and Overseas members. African members received stamped return envelopes, whereas overseas members received unstamped return envelopes.

1. The response

African members : 53%
Overseas members : 10%

2. Sex of respondents:

Interestingly 95% of the respondents were Males.

3. Occupation

Herpetological associated occupation 40%
Students and Scholars 14%
Other occupations 46%

4. Captive breeding

A total of 73% do keep Herps in captivity although only 63% have successfully bred herps. An overwhelming 96% thought that a Husbandry Section in the HAA Newsletter is essential.

(See this issue! Editor)

5. The Journal

(Editor Dr. Bill Branch).

5.1 The contents
Satisfied 82%
Too Technical 11%
Too Popular 7%

5.2 The Presentation
Excellent 20%
Good 65%
Average 15%

5.3 The Printing Quality
Satisfied 97%

5.4 The Number of Journals/Year
Satisfied 49%
Not-satisfied 51%

6. The Newsletter
(Editor Mr J.H. van Wyk)

6.1 The contents
Satisfied 96%

6.2 The Presentation
Excellent 24%
Good 70%
Average 5%
Poor 1%

6.3 The printing quality
Satisfied 100%

6.4 Number of Newsletters/Year
Satisfied 84%
Not-satisfied 16%

7. Membership Fees (African = R9
Overseas = \$10)
Satisfied 78%
Too low 21%
Too high 1%

8. Handling of Membership affairs
(Mr Rod Douglas)
Satisfied 87%
Not-satisfied 13%

9. Membership list printed?
Yes 87%

10. Index to journals printed?
Yes 86%

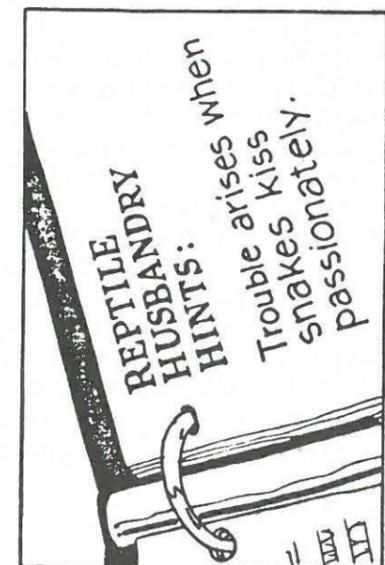
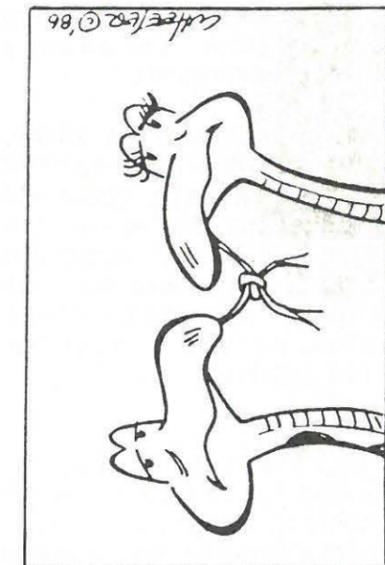
11. Interested in life membership?
Yes 51%

Note: Respondents not bitten by a poisonous snake before; were 59%, 31% were bitten less than five times and 10% more than ten times!

Remember to attend the HAA GENERAL MEETING to be held at the University of Stellenbosch on 31 MARCH 1987.

Thank you for your participation .

J.H. van Wyk



**DEWORMING - A NEW AWARENESS.
PARANOID OR JUSTIFIED**
by TOY BODBIJL

During the past 6 weeks I have been presented with two juvenile snakes both of which suffered secondary eye complaints.

CASE 1

An egg-eater, *D.s. scabra*, which had been in captivity for 2 years had corneo-spectacular swelling and an apparent eye infection. On closer inspection, using a 5X jewellers magnifying lens, a nematode was observed moving around beneath the spectacle.

The eyeball had become atrophied and the spectaular space was filled with pus. Swelling was probably due to a blockage of the lacrimal duct being obstructed by the secondary bacterial infection present.

Despite attempts to treat the snake, it died soon and on post-mortem examination a moderate nematode infestation was found throughout the body involving the brain, lungs and digestive tract. The snake had not previously been dewormed. Final identification of the nematodes found is still pending.

CASE 2

A juvenile spitting cobra, *N. mossambica*, had failed to shed the spectacle during ecdysis in June 1986 and an air bubble had formed between the spectacles. Attempts to remove it failed and an overnight soak in water was recommended. This proved successful but when the owner examined the eye more closely under a dissecting microscope, thread-like worms were seen to move around in the corneo-spectacular space. When the snake was presented to me again on the following day, it had a marked corneo-spectacular swelling and the presence of thread-like nematodes was confirmed. The snake was presented to the Veterinary Dept. at Pretoria Zoo and the following treatment was decided upon:

- 1) Anaesthetize using Ketalar (Parke-Davis). Dose:100mg/kg
- 2) Make a semicircular flap from 3 to 9 o'clock around the ventral border of the eye (Marcus, 1981) and wash the corneo-spectacular space with Ringers sol (Baxter), after which an antibiotic eyeointment could be installed (Chloromycetin, Parke-Davis)
- 3) Deworm the snake systemically with Ivomec, M.S.D. (0,2mg/kg), a broadspectrum antihelminthic as oral antihelmitics are not absorbed into the bloodstream and as such are only effective in the digestive tract.

The procedure went reasonably well, apart from the loss of the parasites upon flushing, which would make final identification impossible. The snake took 2 days to recover fully from the anaesthetic and was returned to its owner 3 days later.

DISCUSSION

In both cases the nematodes were invisible to the naked eye and only by using a handlens or dissecting microscope could these be demonstrated. In my experience so far, this is the first time that I have seen this type of infection, but then, the use of the handlens is also relatively new to me. The Question we have to ask is: are we missing such cases because they are invisible to us or obscured by secondary complaints? One tends to think that perhaps it would be advisable to deworm systemically with a broadspectrum antihelmitic first and then follow the 3 monthly regime of administering an oral antihelmitic such as Panacur 2,5% suspension.

From a financial aspect, the price of Ivomec (M.S.D.) is in the region of R55/100ml. This is rather costly and the Vearinary Dept. at Pretoria Zoo has offered to help in this regard as they do carry stock and would assist in deworming at a minimum fee.

ACKNOWLEDGEMENTS

I am greatly indepted to Dr. R. Burroughs who has spent a lot of time in treating these snakes. A special thanks to the personnel at Niehaus and Botha Pathology Labs as well as Dr. S. Dyson who assisted in some diagnosis.

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BOOK REVIEW

The Bacterial Diseases of Reptiles, by Richard Ross and Gerald Marzec. 1984. 114 pp. 23 color photos. Publ. Institute for Herpetological Research, P.O. Box 2227, Stanford, California 94305. Paper, \$22.00.

This book represents a major advance in herpetological husbandry techniques. Although the works of Reichenbach-Klinke, Frye, and Marcus are admirable and broad in their scope, they leave much to be desired in terms of practical diagnosis and day-to-day husbandry. Contrary to the opinion of some, these works are not *the end* in herpetological husbandry, nor, given the state of art, can they be. Ross and Marzec, however, have filled the gap admirably, at least as far as one disease syndrome is concerned.

Much of this work had its basis in field studies by the authors and in subsequent work in their laboratory. Some of their findings and recommendations will surprise some workers but I find little to argue with regarding their methodology and reasoning. Their finding that Gram-negative bacteria are the major causes of bacterial disease in reptiles is of particular interest and confirms my experience and that of many others. Their arguments for the use of aminoglycoside drugs in the treatment of these diseases are clear and forceful. These recommendations run counter to some current veterinary practices, but it would behoove all veterinarians to take them to heart.

There are other benefits to the book, though. The authors' recommendation that thermotherapy be used in conjunction with chemotherapy is to be applauded. There is evidence that allowing reptiles to raise their body temperature through "hot spots" serves the same purpose as a fever in homeothermic animals: initiation of an immune response by the ill animal (E. Jacobson, pers. comm.).

I was surprised to find that the authors recommend use of phenolic compound disinfectants, a practice largely discontinued upon the recommendation of Karl Kauffeld many

years ago. That certain Gram-negative bacteria may actually grow in certain quaternary ammonium disinfectants, the type of disinfectant now most commonly used, is cause enough to make one consider reverting to phenolic disinfectants, in which Gram-negatives cannot grow.

Ross and Marzec's destruction of the theory that the snake mite is a major bacterial vector is gratifying. This role as a vector has never been proven to anyone's satisfaction, being based on one paper by Camin in 1948; yet the theory persists to this day. Ross and Marzec's laboratory work on snake mites taken from snakes with known infections of Gram-negative bacterial produced no evidence of those bacteria in the mites.

As we all know, with the good must come the bad, but my quibbles are minor. For instance, the authors state that, since the effects of aminoglycoside drugs are additive, half dosages of two different aminoglycosides cannot be administered. Why not? To the best of my knowledge, all injectable aminoglycosides have the same dosage: 2.5 mg/kg. Unless they are trying to say that different aminoglycosides act upon different bacteria (which may well be true), Ross and Marzec's statement makes no sense.

The authors give short shrift to gastroenteritis, a major disease syndrome in reptiles. In addition, contrary to their previous recommendations concerning Gram-negative bacteria and aminoglycoside drugs, the authors list a variety of non-aminoglycoside drugs to be used in treatment of this disease, which is normally caused by Gram-negative bacteria. The aminoglycosides, neomycin and spectinomycin, have been found to be very effective in treating this ailment. I also disagree with the authors' statements against the use of lincomycin, a non-aminoglycoside drug. I have found this drug to be particularly effective against cutaneous and subcutaneous staphylococcal infections.

I disagree with some of the authors' taxonomic designations. For example, the authors raise lampropeltine colubrids to familial level: Lampropeltidae. Although there may be merit in this, I have yet to see any definitive paper supporting this notion. Lastly, the authors commit a nomenclatural *non sequitor* almost equal to Ross' *Bothrochilus boa nardoana* of *The Python Breeding Manual*, this time it is *Liasis morelia spilotes!*

All in all, though, the book is well worth its \$22.00 purchase price. That may seem steep but perhaps this is justified by the several excellent color plates in the appendix. This book belongs in the library of anyone (particularly veterinarians) concerned with herpetological husbandry.

ERIC M RUNDQUIST

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Herp Review 17(2), 1986

Ecology and Natural History of Lizards.
By Eric R. Pianka. Pp. 208. (Princeton University Press)

In just under 97 full pages of text, Eric Pianka provides a synthesis of work that has occupied him for over 20 years and has taken him thousands of kilometres around the globe, from the deserts of western North America to the Kalahari of Africa and the Great Victoria desert of Australia.

While some may argue about the efficacy or appropriateness of 'walk-through' field techniques, one cannot help but be impressed with the size of the database that has been generated. Ecological morphological and reproductive data from more than 15 000 lizards representing more than 90 species and 11 families and spanning the deserts of three continents form the nucleus of Pianka's monograph.

The concise, readable prose is supplemented by a multitude of tables and figures. The book covers a variety of topics, including thermal relations and spatio-temporal patterns of activity, foraging and reproductive tactics, community organization, and ecomorphology, in varying detail. Some topics, most notably the section on foraging tactics, are simply reviews of earlier work with few new insights. Others, such as the section on thermal relations, have been extended from earlier work, with many new data and a host of new analyses. The main body of the monograph is augmented by 30 papers of detailed appendices containing a variety of data in summarized form. This expanded database may prove to be one of the most valuable long-term contributions of the book, allowing for the re-examination of early interpretations and the testing of hypotheses not considered by Pianka.

Overall, Pianka's book has something to offer not only to students of lizard and community ecology but also to specialists in these fields. For the student the book provides an overview of methods and analyses often employed in intercontinental comparisons. It also provides a point of view on a number of subjects which could generate substantive discussion in an advanced course. For the specialist there are numerous points of departure for alternative views and the initiation of new investigations. Pianka's use of computer-modelled removal-introduction experiments, for example, is an interesting use of the so-called 'null' community models that requires further study.

Throughout his monograph Pianka stresses intercontinental community comparisons over and above spatial and temporal variations in community structure within continents. While this is an unfortunate limitation of his book, it nonetheless leaves open a host of areas for future research. Pure natural history receives relatively little attention despite its presence in the title. Yet those natural history tidbits that are included are fascinating and serve to highlight what a diverse and interesting group desert lizards comprise. Pianka's conclusion that 'a great deal remains to be learned' is most certainly an understatement.

On a more mundane level, the text is relatively free from typographical errors, the most notable being in the formulation of Simpson's diversity index. The book is also supplied with 29 excellent colour photographs, although in the copy I reviewed over one-quarter of these lacked clarity due to poor quality printing. On balance, *Ecology and Natural History of Desert Lizards* is a volume worth having, particularly at the soft-cover price.

R.D. Pietruska

*Desert Ecological Research Unit,
Gobabeb.*

S.AFR.J.SCI.VOL 82 SEPT 1986

1986 HERPETOLOGICAL CIRCULAR

No. 15

CANNIBALISM IN REPTILES: A WORLD WIDE REVIEW

by

JOSEPH C. MITCHELL

The 1986 Herpetological Circular is a comprehensive compilation of records of the occurrence of cannibalism in reptiles. It includes a review of literature, a discussion of the terminology and its problems and a listing of 192 species accounts, with information on prey size, sex of the individuals involved, whether the incident was in the field or in a captive situation, and other ecologically relevant data. It is an important volume for all interested in the subject of cannibalism.

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New Shock Therapy for Snakebites

By LAWRENCE K. ALTMAN, M.D.

ACHAT in a London laboratory between an American missionary physician who practices in the Amazon and two tropical disease experts has led to a new electric shock therapy that saves the lives of snakebite victims but that defies scientific explanation.

The treatment is delivered through modifications of what are popularly known as stun guns. It comes in the form of four or five high-voltage, low-current electric shocks. Each is painful and lasts one to two seconds. The shocks are given about five to ten seconds apart and are applied as close as possible to the site of the bites of snakes and such venomous insects as scorpions and ants.

In 34 cases where there was evidence of venomous bites that had penetrated the skin of limbs, the current was applied within about a half hour. None of the usual serious medical complications developed and none of the patients died, the researchers said in a report on what could become a revolutionary treatment. Also, the pain of the poisonous bites disappeared within 15 minutes, according to the report in the July 26 issue of *The Lancet*, a leading medical journal published in London.

The missionary physician and the tropical disease experts reported on treatment of the 34 patients in Ecuador. The patients did not receive the usual antivenom therapy for snakebites, one of the authors of the report said in an interview.

Venoms can produce damage very quickly. Seven bite victims who refused the electric shock therapy suffered complications such as swelling, bleeding, shock and kidney failure. Two needed life-saving amputations.

Although the biting snake could not be identified in all 41 cases, the authors believed that most bites were by small pit vipers similar to the water moccasin and copperhead of North America. Bites by such snakes tend to cause destruction of tissue in the area surrounding the bite, leading to the loss of a finger or part of limb. Larger snakes in the Amazon area can be even more dangerous, but more research is needed to determine if the jolts of electricity will work against venoms that damage the central nervous system.

Most astonishing to the authors was that the jolts of electricity were successful even after serious symptoms had already developed. Two additional patients suffered intense pain and swollen limbs from viper bites. Although they were not treated with electric shocks until two hours after the bites, they were relieved of pain within 30 minutes. Their symptoms did not progress, and both recovered with no serious lasting damage.

"We don't understand that and it is very hard to come up with a good scientific hypothesis to account for the change," said one of the authors, Dr. Jeffrey F. Williams, an expert in tropical diseases at Michigan State University in East Lansing.

Although other physicians said they would consider the treatment experimental until confirmatory reports were published, doctors in three other countries have used it successfully, according to the *Lancet* report.

The technique's greatest potential is in snake-infested areas with limited health care facilities. In eastern Amazon jungles of Ecuador, according to an earlier report, 4 percent of deaths are caused by snakebites, and half the men of the Waoroni tribe suffered more than one snake bite.

Because the shock treatment can be applied with electricity generated by such simple devices as outboard motors and power lawn mowers, reports of the therapy have brought inquiries from American military officials and oil company executives who see the potential of including stun guns in first-aid kits for troops and workers in snake-infested jungles and tropical rain forests.

Beyond the natural role of electricity in governing the rhythm of the heart and nervous system activity, doctors have been harnessing electricity to play an increasing role in the practice of medicine. They have long used electrocardiograms and brain wave tests called electroencephalograms and other tests to diagnose ailments.

In treatment, doctors have little difficulty understanding why jolts of electricity can be effective in resuscitation efforts and in converting abnormal heart rhythms to normal ones. Yet doctors have no explanation for the relief that electroshock therapy can bring many depressed and mentally disturbed patients.

More recently, doctors have used lithotripter machines to provide jolts of electricity to break up kidney stones, avoiding major surgery. Orthopedic surgeons apply electric currents to help some broken bones heal.

Electric shock therapy for snakebites had its origins in part in the London discussion between the three authors of the report.

Dr. Williams recalled how surprised he and Dr. Charles D. MacKenzie of the London School of Hygiene and Tropical Medicine were when, during a chat in Dr. MacKenzie's laboratory two years ago, the subject somehow turned to venoms and Dr. Ronald H. Guderian, the missionary physician in Ecuador, described his experiments with the electric shock therapy for snakebites.

Dr. Williams said Dr. Guderian described the notion, widespread in Ecuador, that electricity was a therapy for snakebites. He said snakebite victims try to get to an engine in order to run a wire carrying electricity from its coil into the area of the bite.

This folklore also led him to overcome his skepticism about a newspaper report of an Illinois farmer who applied high voltage, low amperage, direct current shocks to the site of bee stings to prevent the severe reactions he usually experienced.

Though enormous potential exists for clinicians to make valuable contributions to medicine, particularly

those who practice in remote geographic areas, most have great difficulty in doing so because they have neither time nor the training to write up their cases in a scientific manner.

In this case, all three doctors knew that injections of antivenoms would prevent death or injury in snakebite cases when the biting snakes could be identified and when the antivenoms were available. "The problem is that people living in a jungle often get bitten four hours canoe ride from anywhere there might be an antivenom," Dr. Williams said. He said he and Dr. MacKenzie encouraged "Ron to pull together his patient records and to collect evidence that was good enough to build a story around."

Dr. Guderian did just that. Then Dr. Williams and Dr. MacKenzie paid him a visit in Ecuador at the Hospital Vozandes in Quito and at a clinic in Zapallo Grande in the northwestern Ecuador. When Dr. Williams saw the treatment firsthand, he said he realized "it was a first-aid measure that worked better than anything else."

The biggest mystery is why electric shock therapy works against snakebites.

At first, the group thought it might be because the jolts produced severe muscular spasm that restricted blood flow, preventing the spread of the venom in the body. But favorable results among people who had already suffered severe systemic symptoms, including shock, strongly argue against that theory, Dr. Williams said. Also, he said that the amperage is too low to give a cauterizing effect.

Dr. Williams said he had reviewed the entire scientific literature on the chemical makeup of venoms and found they were very complex, some consisting of up to 10 toxic substances. "It is not a simple toxic effect, and it is hard to understand how something like electricity can have an effect on such a wide range of processes," Dr. Williams said. "It just doesn't make sense right now."

Now the research must move to laboratories, he said, "because it is hard to justify too much experimentation on victims in the jungle, particularly when the therapy hurts."

Dr. Williams said he had milked snakes in Ecuador and carried the venoms back with him for further research. In the next step, he said he and other researchers at Michigan State University plan to find an animal suitable for use in study of the electroshock therapy and venoms. They hope to determine the correct dose of electricity, to learn why the jolts work and to find out what current does when it passes through the body. "I want a reasonable scientific explanation," Dr. Williams said.

THE NEW YORK TIMES,
August 5, 1986

GEOMETRIC TORTOISE FUND



The Herpetological Association of Africa would like to thank all the donors for their contribution to the fund. Although only a small proportion of the membership contributed this donation will not go unnoticed. These few members, therefore, made an important contribution, helping to promote the HAA as a conservation orientated association.

"One can easily imagine how much money and effort we would be willing to devote to preserve an animal species on the moon, if the astronauts had found one. No species on earth is less precious."

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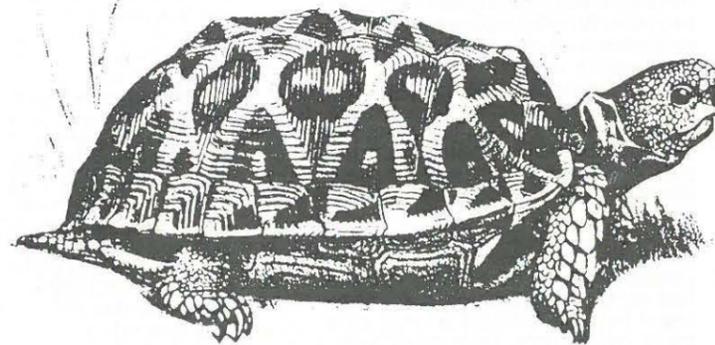
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The Geometric Tortoise Fund now amounts to:
R1 300.00



Transvaal Snake Park (Pty) Ltd.

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Reg. No. 60/04513/07

4 November, 1986

Mr J H Van Wyk
The Newsletter Editor
Herpetological Association of Africa
National Museum
BLOEMFONTEIN
9300

Dear Mr Van Wyk

RE: GEOMETRIC TORTOISE FUND

I would like to place on record that an amount of R1,500.00 was collected at Transvaal Snake Park towards the above-mentioned fund. Unfortunately the cheque had already been posted to the Wildlife Society of S.A. when your newsletter was received. Not that it matters who sends the money as long as the Geometric tortoise benefits. This is merely to inform you that our organisation as an H.A.A. member contributed towards the fund.

Yours sincerely

ROD W PATTERSON
DIRECTOR



Directors: V.M. Keyter, R.W. Patterson

'SA needs a national strategy'

Our Living World, November 23 1986

DR ANTON Rupert, president of the SA Nature Foundation, has called on the Government to urgently develop and publish a national conservation strategy.

His president's report in the SA Nature Foundation's newly released annual report for 1985/86 states that a strategy to ensure sustainable development is essential in a country as fragile as South Africa.

"It is a serious concern for this Foundation," he said, "that while almost 40 countries of the world have drawn up their own national conservation strategies, South Africa has not."

But such a strategy is imperative in a country with such a magnificent wealth of wildlife and yet such limited resources of water and fertile land, together with an expanding population and an arid climate.

Furthermore the demands for socio-economic development in a country facing both Third and First World problems place a tremendous strain on

this fragile but beautiful land, he said.

The SA Nature Foundation is the South African branch of the World Wildlife Fund which in 1980, together with IUCN and UNEP, published the World Conservation Strategy (WCS), described as "an action plan to save the world from environmental catastrophe".

The World Conservation Strategy has two key objectives: to show that conservation is for man and is an essential partner of all socio-economic development, and secondly to encourage countries to publish their own national strategies to integrate development with conservation for the benefit of both.

Dr Rupert said: "All the problems and necessities of our developing society — economic, social and political — can be satisfactorily resolved only within a healthy natural environment.

"There is an urgent need for a national conservation strategy to guide Government, commerce and industry, agriculture and the public in managing this land as guardians, in sacred trust for future generations."

BY making a donation to the "Care for Nature" campaign, you can actively help rescue threatened animals such as the Cape mountain zebra and black rhino, create new nature reserves in key areas and spread the message of the crucial importance of conservation. Please help by sending a donation with this "Care for Nature" coupon. Thank you for your concern.



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HERPETOLOGICAL READING

South African
Journal of Zoology

Incorporating Zoologica Africana

Volume 21 Number 4 October 1986
S 0170 21(4) 283-356 (1986)
ISSN 0254-1858

Description of a new species of *Cordylus Laurenti* (Reptilia: Cordylidae) from the south-western Cape, South Africa

P. le F.N. Mouton
Department of Zoology, University of Stellenbosch, Stellenbosch

ANNALS OF THE TRANSVAAL MUSEUM ANNALE VAN DIE TRANSVAALMUSEUM

Volume Band 34 September 1986 September Part Deel 9

DESCRIPTION OF A NEW SPECIES OF *TYPHLOSAURUS WIEGMANNI*, 1834 (REPTILIA: SCINCIDAE) FROM THE WEST COAST OF SOUTHERN AFRICA, WITH NEW RECORDS OF RELATED SPECIES

WULF D. HAACKE
Transvaal Museum, Pretoria

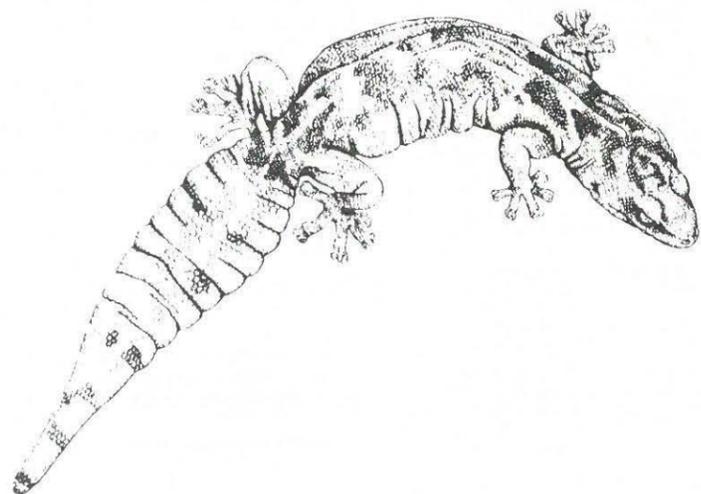
JOURNAL OF HERPETOLOGY

VOLUME 20, NUMBER 3, SEPTEMBER 1986

Hemipenial Morphology of African Snakes: A Taxonomic Review
Part I. Scolecophidia and Boidae

W. R. BRANCH

Department of Herpetology, Port Elizabeth Museum, P.O. Box 13147, Hamewood 6013, South Africa



Snake is still the bad guy

Sapa-Reuter

Hammond (Louisiana)
TORTOISES can expect courteous treatment from motorists, but snakes on the road had better watch out, an American scientist said this week.

David Shepherd, biology professor at South-eastern Louisiana University, said he placed rubber snakes and tortoises on highways in a three-year experiment to study motorists' reactions.

Several drivers stopped to rescue the rubber tortoises, the professor said, but motorists tried to destroy the snakes with everything from shotguns to machettes.

One policeman swerved his car to run over a fake snake on the side of the road before reversing to run it over again and again.

He then stopped and was about to shoot the snake's head off before Professor Shepherd emerged from nearby bushes to stop him.

"The snake has always been the bad guy, all the way back to the Garden of Eden, and it doesn't appear that people are viewing it any more kindly now," Professor Shepherd said.

Dehydration in Desert Iguanids
by Tom Porter

My major difficulty in keeping desert iguanids has been dehydration: it's easy to spot on the back of the pelvis - if you see the bone outlines, he's in trouble. A healthy lizard has bulging muscles between the dorsal processes which obscure them completely. Serious dehydration looks like the tail of a three-winged paper glider under the skin. Starvation appears mainly in the thighs, but either will eventually deplete the other's muscles when its own are gone.

I believe these animals get most of their water in nature by eating ants: formic acid plus stomach acid yields water. Species that eat a lot of ants are particularly wasteful with their water and dehydrate rapidly in captivity. (e.g., *Phrynosoma*)

Some adapt readily to drinking from a dish (*Sceloporus*) if you put a few rocks in it for them to explore. Some will drink if sprayed, or if water is dripped slowly into the dish from an overhead I-V bottle (using an aquarium needle valve, backwards). Some will learn to sit in the water dish, absorbing water through the cloaca. (Change the water often.)

But the problem with most is teaching them to drink. I have two favorite techniques, and a last resort:

The easiest is to walk by the cage several times a day, throw in a few mealworms, and splash a little water into the dish. They watch very closely.

If I start to see the glider-tail, this hasn't worked; so I read into the cage with an eyedropper and put a drop on his nostrils, so it can run down the nasal passages. After a while, it tastes good, and he begins to drink from the eyedropper. His fear is the main obstacle, alleviated by doing this frequently so he gets used to it. Then I reach in with a hamster bottle instead of the eyedropper - and there's another hamster bottle just like it hanging in the cage.... (the kind with the ball in the end works best.)

Dehydration produces disorientation - stupidity - so sometimes learning isn't possible. I roll the mouth open with a toothpick and tilt the head back. Now I drip water into it with an eyedropper. Swallowing is automatic, like in the dentist's chair. A normal eyedropperful (2 cc's) per day isn't too much for a typical 4" iguanid if he's partially dehydrated. With health comes learning, and (usually) he drinks from the eyedropper after a while, then unrestrained, then from the bottle, etc.

If he's close to death, start with a swallow a few times a day, or the shock will kill him.

Young lizards learn faster than adults, and some older ones never do; captive-born babies are the easiest.

Ecology and Natural History of Desert Lizards

Analyses of the Ecological Niche and Community Structure

Eric R. Pianka

Eric Pianka offers a synthesis of his life's work on the comparative ecology of lizard assemblages in the Great Basin, Mojave, and Sonoran deserts of western North America, the Kalahari semi-desert of southern Africa, and the Great Victoria desert of Western Australia. Prior to his efforts, lizard ecology in these areas was virtually uninvestigated. In Australia he discovered half a dozen new species, as well as the richest lizard faunas known. Perhaps the single most important aspect of his research is the fact that he has described three comparable but independently evolved ecological systems. Study of such widely spaced systems by a single researcher using identical field techniques provides unique material for understanding questions of community structure and ecological convergence.

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A COMBINED HOOK FOR HANDLING SMALL VENOMOUS SNAKES

There are many devices for handling venomous snakes and all have a double function: To prevent the handler from being bitten and to avoid injury to the snake. Several satisfactory instruments for handling adult venomous snakes have been reported (Gillingham et al. 1983; Freed and Freed 1983; King and Duvall 1984; Fuhrman 1975). However, devices for handling juvenile or smaller species of venomous snakes have not been reported. This paper describes a new, combined hook that was developed for handling newborn and/or small-bodied venomous snakes under laboratory conditions.

The tool (Fig. 1) is constructed by modifying a steel fencing foil and consists of three main parts:

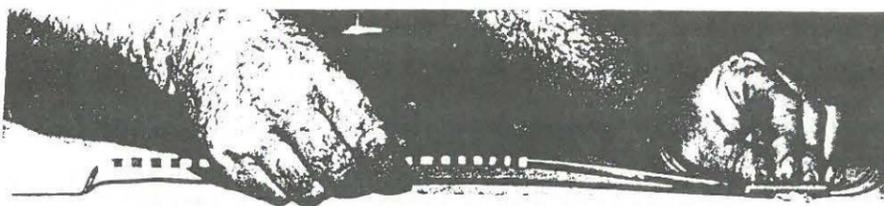
1. The "hook end": This part is flattened and curved so that it is easy to insert under the body for elevation of the specimen.

2. The "body": Behind the hook is a straight cylindrical section, covered with rubber tubing. This portion is used to gently press the snake's head onto the substrate before grasping by hand.

3. The "oar end": This part is flattened and resembles a small oar having a double-angled neck. Its function is to lift the snake's neck up between the fingers during the grasping process (Fig. 2). This is important because it is often difficult to pick up a small snake with the fingers.

After immobilizing the snake with the rubber-covered section, the "oar" is used to lift the head into a better position between the

Herp Review 17(3), 1986



A = 4 cm D = 12 cm
 B = 2,5 cm E = 5 cm A || C || E
 C = 24 cm F = 4 cm

Figure 1. Overall view and dimensions of the snake hook. The snake's head is immobilized by pressing with part of the tool covered by rubber tubing.

Herp Review 17(3), 1986

fingers (Fig. 3). This makes it unnecessary to grasp the snake with fingernails or fingertips or having to exert too great a force in the process. Pressing the soft tissues of the neck against the vertebrae could easily result in trauma.

The various angles of the tool are important in providing comfort and balance. During the whole procedure, the longest section of the tool is gripped. While pressing down the snake's head or slipping the oar under the head, the end being used should be parallel to the substrate. At the same time, the articulations of the hook-grasping fingers should also contact the substrate, providing easier coordination of the tool and greater control over the degree of pressure being applied to the snake's head (Fig. 1).

ACKNOWLEDGMENTS

Special thanks go to my colleague Dr. Ernő Vértés for taking the photographs.

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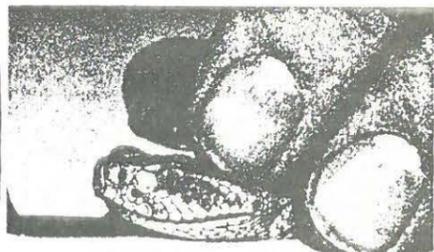


Figure 2. The oar end is slipped under the head-neck region of the snake, as the latter is pressed down between the fingers.

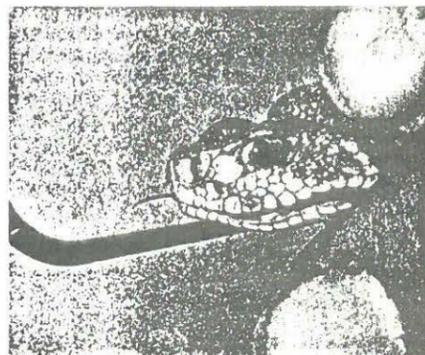


Figure 3. After slight release of pressure on the neck, the snake can be raised so a firmer grip can be applied on the neck and head.

CHERNOBYL - OUR CHELONIA AT RISK?

Request for information:

I and several other chelonia-breeders on the Continent (Belgium and East and West Germany) have observed an extremely high mortality-rate of near-term foetuses in eggs laid by captive Chelonia after the first week of May 1986. In most cases the mortality rate was as high as 100%.

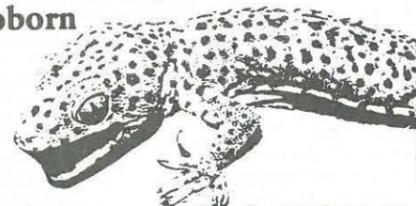
In some cases the dead foetus has not shown any external deformation at all. In other cases, the foetus showed retarded development, lack of pigmentation in the skin of the head and part of the front- and hindlimbs. Sometimes in combination with strongly swollen neck or partial development of the brain on the top of the skull. In several cases reported from East-Germany most of the foetuses showed multiple, often severe deformations.

As these unusual results seem to have occurred rather frequently and over such a wide-spread area and all appeared during the same time, the belief has risen that there may be a connection with the nuclear disaster earlier this year in Russia. An additional fact of importance seems to be that species feeding on vegetable matter seem to be more affected than those fed on things like commercial pet foods.

As this could be a matter of considerable importance it should be investigated and it is therefore necessary to gather as many observations as possible from as wide an area as possible. Programmes to gather this information have already started in West Germany, East Germany, Holland and Belgium. It would be greatly appreciated if breeders in England would cooperate and report back their experiences, regardless of the fact whether their observations confirm ours, or contradict them.

If it is true that captive chelonia are affected then it must be true for chelonia in the wild. Therefore, observations on 1986 hatchlings of European species in the wild are also of importance.

SNAKES AND LIZARDS Their Care in Captivity John Coborn



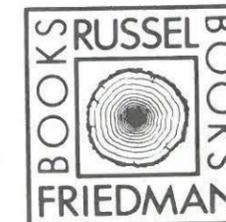
John Coborn draws on a wealth of experience to advise on the sensible selection and care of captive snakes and lizards. The high quality illustrations, make this a beautiful as well as informative book, invaluable for both the beginner and experienced herpetologist.

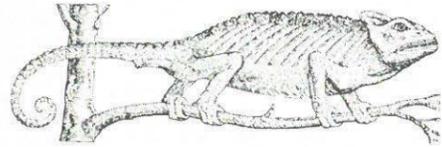
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WORLD CONGRESS OF HERPETOLOGY

The World Congress of Herpetology announces the **FIRST WORLD CONGRESS OF HERPETOLOGY**

11-19 September 1989
at the University of Kent, Canterbury (U.K.)

This international congress will be the first of a series occurring at regular intervals at venues around the world. Such a meeting will enable all persons interested in herpetology to meet and exchange information to promote the advance of knowledge and the conservation of the world's amphibians and reptiles. The congress will consist of topical symposia, poster sessions, plenary speakers, workshops, displays, excursions, and meetings of ancillary groups. Subjects and moderators of symposia will be announced well in advance so that potential participants can volunteer. The meeting will be open to all persons. Registration will begin 1 January 1988.

For further details and mail listing, write: Dr. Ian R. Swingland, World Congress of Herpetology, Rutherford College, University of Kent, Canterbury, Kent CT2 7NX, United Kingdom.

Sponsoring organizations and individuals are welcome. For further details write: Dr. Marinus S. Hoogmoed, Rijksmuseum van Natuurlijke Historie, Postbus 9517, 2300 RA Leiden, The Netherlands.

Funding and Sponsorship.

A major conference of this sort requires funding from outside sources if registration costs are to be kept reasonable and some travel grants are to be provided. Accordingly, two groups have been appointed. The Earl of Cranbrook has agreed to establish a U.K. Committee of Patrons, comprising the leading naturalists and many public figures, a group that, among other functions, will assist in fund raising. Ian Swingland, the conference director, has established a U.K. National Executive Committee, one arm of which will handle fund raising.

Thus, fund-raising activities in the United Kingdom are well organized and doubtless will be effective. However, we hope in addition to raise funds outside the U.K. I ask you, therefore, to *send me the names and addresses of any academic organizations, commercial firms, or others to whom I could make an appeal for funds.*

Clearly we will want travel awards to go to the most needy individuals. *How do we define "needy."* Should persons in symposia or other official activities be given preference? Students? People from certain countries or long distances? Should an international committee be established to supervise these awards? Your advice will be appreciated.

Secretary-General

KRAIG ADLER
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Citizen Reporter

SIX harmless Aurora house snakes were released into the veld near Halfway House this week so they could breed freely and create a healthier ecological balance.

The snakes, which started hatching last Sunday in the Transvaal Snake Park, belong to an endangered snake species which is almost extinct in many areas of the highveld.

Six snakes slither 'back into nature'

The Snake Park curator, Richard Boycott, said the snakes were often killed by people who thought they were dangerous. In some cases they were mistaken for green mambas (they be-

come greenish in colour as they get older) and killed.

The Aurora house snake, feeds on lizards, rats and mice. "They are very useful to conserve," said Mr Boycott.

The Snake Park breeds many harmless snakes, like the red-lipped herald, the mole snake, the water snake and the wolf snake, and many of these hatchlings are released in undisturbed areas in order to "put something back into nature".

These hatchlings of the Aurora house snake were released into the veld this week by the Transvaal Snake Park curator, **RICHARD BOYCOTT.**

