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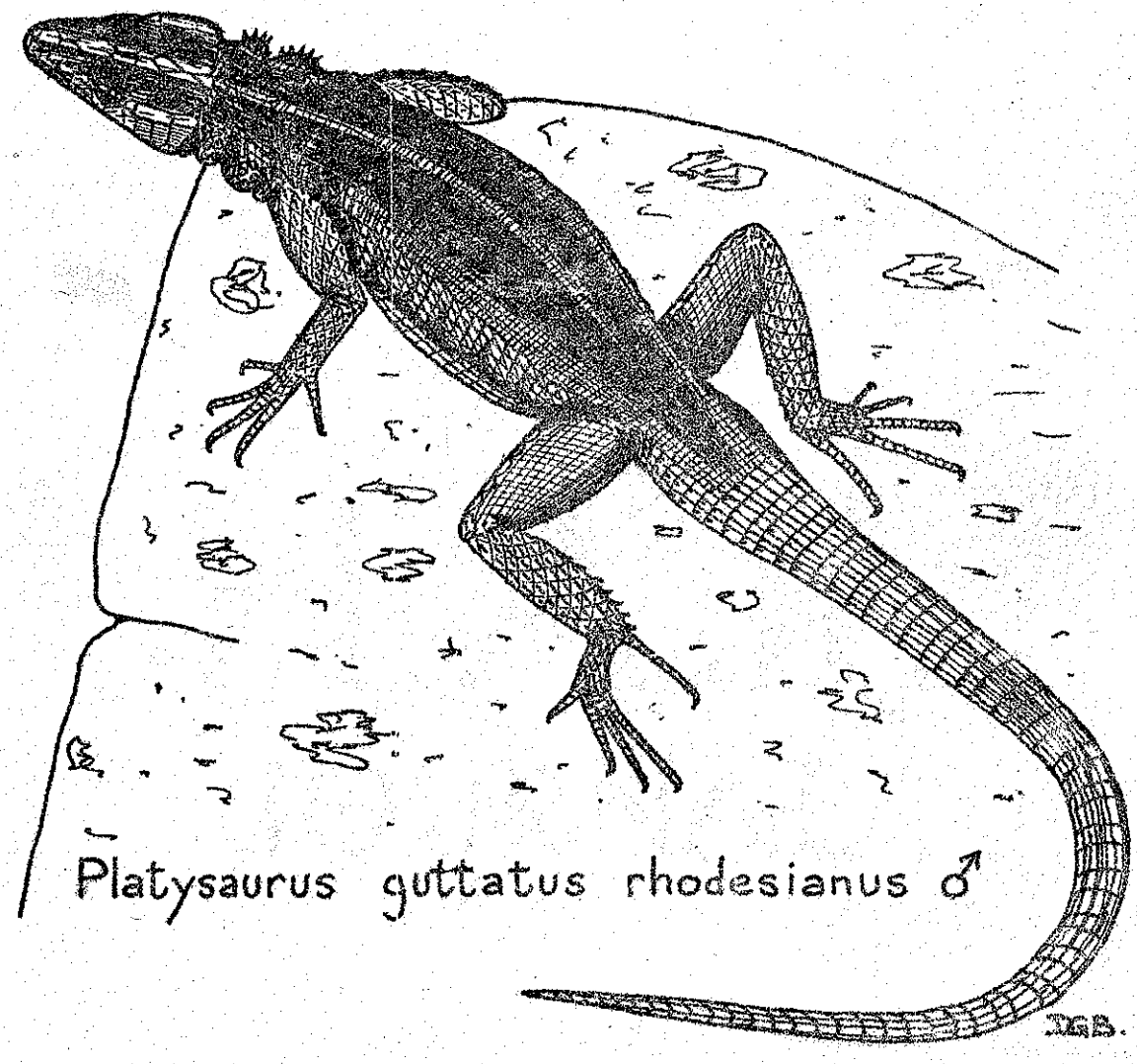
H.A.R.
JOURNAL



Platysaurus guttatus rhodesianus ♂

THE JOURNAL OF THE HERPETOLOGICAL ASSOCIATION OF RHODESIA.

No. 22. March, 1964.

CONTENTS

NEW MEMBERS

R. A. Barton, 8 Keats Avenue, Fairbridge Park, UMTALI, S. Rhodesia.

C.R.A.Tantum, c/o D.T.Crow, 57 Learoyd Road, Braeside, SALISBURY, S. Rhodesia.

NEW ASSOCIATE MEMBER

R. A. Knight, 101 Woodruff Avenue, Brooklyn, NEW YORK, U.S.A.

CHANGES OF ADDRESS

A. H. Siemers, P. O. Box 8335, CAUSEWAY, S. Rhodesia.

D. T. Crow, 57 Learoyd Road, Braeside, SALISBURY, S. Rhodesia.

J. Weimann, 6 Spencer Avenue, Bellevue, BULAWAYO, S. Rhodesia.

P. Taylor, Agricultural Research Council, Lusulu Ranch, P.Bag 6, DETT, S. Rhodesia.

P. S. M. Berry, Game & Fisheries Dept., P. O. Box 12, MPIKA, N. Rhodesia.

R. A. Mayes, 123 Lobengula Street, BULAWAYO, S. Rhodesia.

EDITORIAL:

The Minutes of the Second General Meeting of the H. A. R. are presented below. This was held in Salisbury to coincide with the Symposium on African Mammals held by the Zoological Society of Southern Africa. This enabled two of our Northern Rhodesian members to be present, but only seven Southern Rhodesian members attended.

The poor attendance at the General Meeting, together with the feeble response to my appeal for contributions for the H.A.R. Journal, indicates that the H.A.R. is desperately in need of a blood transfusion. The Association must expand or die.

The H. A. R. remains the only active society devoted to herpetology in Africa. Our financial position is sound. The Association's Journal has a good reputation both in Africa and overseas. The H. A. R. has certainly greatly helped to advance the study of African reptiles and amphibians.

I feel sure that members will agree that the H. A. R. must not be allowed to fade out due to lack of support within the Rhodesias. It is, therefore, proposed that the H. A. R. be renamed "The Herpetological Association of Africa" with full membership open to any herpetologist resident in Africa. Those Associate Members of the H. A. R. who are resident in South Africa or East Africa may become full members upon payment of a £1. (R.2) entrance fee. The proposed revised Constitution is given below. These proposed Constitutional changes have been seconded by L. Balarin (Chairman) and D. K. Blake.

A voting form is enclosed with this Journal and members are asked to return the completed forms as soon as possible, so that the result can be published before the end of the financial year (March 31st).

DONALD G. BROADLEY,
HON. SECRETARY/TREASURER,
UMTALI MUSEUM,
UMTALI,
Southern Rhodesia.

EDITORIAL ADDENDA:

Since the above Editorial was written a letter has been received from John Visser regarding the proposed Constitutional changes. Although he is in favour of extending full membership to all herpetologists resident in Africa, he is strongly against changing the name of the Association. He feels that the individuality of the Association and the Journal would be lost, together with the status which the H.A.R. has attained both in Africa and overseas.

Many South African scientific societies have membership open to residents in other parts of Africa, but are faced with grave problems now that the South African Government have extended racial segregation to those scientific and professional societies that receive financial support from the Government. It seems, therefore, that Southern Rhodesia is probably the best centre for a society which requires strong support from South Africans, while remaining pan-African in scope.

The case for retaining the existing name of the Association is a good one, so Members are asked to cast two votes, one to accept or reject the change of name, the other to accept or reject the new Constitution.

D. G. BROADLEY,

UMTALI MUSEUM.

19th March, 1964.

THE HERPETOLOGICAL ASSOCIATION OF AFRICA.

CONSTITUTION AND RULES.

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

2. The objects of the Association are:-

(a) 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. Scientific names will be used to avoid confusion.

(b) To build up, at the Umtali Museum, a comprehensive study collection of African reptiles and amphibians.

(c) To educate the public towards a sane and reasonable attitude to reptiles and amphibians in general, and snakes in particular. This object may be achieved by means of lectures, exhibitions, films and articles.

(d) To promote, where necessary, the addition of reptiles and amphibians to lists of protected fauna and to press for the conservation of the habitats of localised endemic forms. To ensure that the protection afforded by existing laws and by National Parks and Wild Life Sanctuaries is effectual.

(e) To encourage the study of reptiles and amphibians, both in the wild state and in captivity.

(f) 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.

(g) To collect and receive subscriptions and donations for the purpose of carrying out the above objects.

3. (a) Membership shall be open to any herpetologist, resident in Africa, who has given satisfactory proof of his enthusiasm and ability.

(b) Candidates for membership may be introduced by a member, or may qualify by submitting material and observations to the Hon. Secretary.

(c) 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 and may correspond with any member.

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 vote by all members.

5. (a) Members shall pay an Entrance Fee of £1. (R.2), and also pay an Annual Subscription of ten shillings (R.1). Associate Members shall pay an Annual Subscription of ten shillings (1 dollar 50 cents U.S.), except where an exchange of publications has been agreed. Life Members shall subscribe £15 (P.30) (£.7.10s. if over the age of 60); Associate Life Members shall subscribe £7.10s. (22 dollars, 50 cents U.S.).

(b) The Entrance Fee 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. There shall be a General Meeting of the Association at least once every three years, at a place to be appointed by the Hon. Secretary.

10. The Constitution may be amended either at a General Meeting by a two-thirds majority of the members voting (either in person or by post), or, between General Meetings, by a two-thirds majority of members voting by post.

11. The official organ of the Association shall be the 'Journal of the Herpetological Association of Africa', published twice yearly and circulated to all members. This will be compiled by the Hon. Secretary, acting as Editor, using information and material submitted by members and gleaned from scientific journals, etc.

12. The Association Badge shall be a rearing Banded Cobra (Naja haje haje, var. annulifera) in black and gold, on a green field, with the initials H. A. A. above in gold. Below on a scarlet scroll, is the motto - 'Cavemus neque veremur' (We respect, but do not fear).

MINUTES OF THE SECOND GENERAL MEETING OF THE HERPETOLOGICAL ASSOCIATION OF RHODESIA, HELD AT THE QUEEN VICTORIA MUSEUM, SALISBURY ON THE 25TH SEPTEMBER, 1963.

The Meeting was attended by the following Members:-

Mr. D. K. Blake (Chairman)
Mr. D. G. Broadley (Hon. Secretary/Treasurer)
Mr. L. Balarin
Mr. D. Corton
Mr. D. T. Crow
Mr. B. Marsh
Mr. B. L. Mitchell
Mr. A. C. Newman,
Mr. R. L. Oxenham.

Mr. Crow introduced Mr. C. R. A. Tantum as a new Member of the Association.

The Meeting opened at 7.45 p.m. with the Chairman's Address.

CHAIRMAN'S ADDRESS:

Gentlemen, it give me pleasure to welcome you to the Second General Meeting of the H. A. R.

In the three years since the last Meeting the Association has continued to grow, but the additions to our Membership have largely been Associates, and the increase among full Members has been offset by lapsed Memberships.

At home the Association is dying through lack of interest. Our Rhodesian snakes are now fairly well-known, but Members can do useful work on the other groups, which are still poorly known. Even a detailed ecological study of a single common species of reptile or amphibian would be most useful.

The Editor continues to have difficulty in obtaining articles for the H.A.R. Journal. If more Members would take the trouble to write up brief accounts of their observations, it would give rise to a more varied and interesting publication.

I am not standing for re-election as Chairman, because I think that there should be changes among the office-bearers, and it would be difficult to replace the Secretary/Treasurer.

SECRETARY/TREASURER'S ADDRESS:

Gentlemen. The past three years has seen a great increase in our knowledge of the Rhodesian herpetofauna, but on reading through the Minutes of the last General Meeting, I note that two projects then in hand remain uncompleted. The report on the herpetofauna of Kariba Lake has been held back so that the fine collections made by Peter Taylor could be

incorporated, and also to enable Dr. Poynton to work out the local amphibians. The Northern Rhodesian Checklist was initially held up because of the shortage of lizards and chelonians, but with Dr. Poynton's revision of the amphibians in the offing, it became desirable to expand the Checklist to include amphibians as well as reptiles. With fine collections coming in from our energetic Northern Rhodesian Members, it is hoped that this Checklist will materialize in the not too distant future.

My revision of the genus Platysaurus is nearing completion and great progress has been made with Southern Rhodesian lizards generally, but there is still much to be done. Some of the problems which remain to be solved are:-

(a) How many species of Hemidactylus exist south of the Zambezi - one, two or three?

(b) Is Pachydactylus oshaughnessyi a species distinct from P.c.affinis?

(c) Are the lowland populations of Nucras intertexta separable as a distinct race - ornata?

(d) Is the present division of Southern Rhodesian specimens of Agama hispida into 3 races (aculeata, distanti and armata) justified?

(e) Are Acontias plumbeus occidentalis and A. p. broadleyi indeed conspecific with the huge A. p. plumbeus of the Mozambique Plain?

ELECTION OF OFFICE BEARERS:

CHAIRMAN: L. BALARIN (unopposed)

Proposed: D. K. Blake
Seconded: D. T. Crow

SECRETARY/TREASURER: D. G. BROADLEY

Proposed: L. Balarin
Seconded: D. T. Crow.

Mr. Blake vacated the Chair and Mr. Balarin took over the business of the Meeting.

MOTION NO. 1:

"THAT THE DIRECTOR OF WILD LIFE CONSERVATION BE APPROACHED WITH A VIEW TO PLACING CHAMAELEO MARSHALLI ON THE PROTECTED LIST".

Proposed: D. K. Blake.

Seconded: D. T. Crow.

Mr. D. G. Broadley felt that this dwarf forest chameleon was in no danger of extinction, as it was not "showy" enough to be in demand by overseas dealers, and permits to collect specimens for scientific research would be granted even if the species was protected.

Mr. B. L. Mitchell asked whether there was any danger of this chameleon's habitat being destroyed and was assured by Mr. Broadley that the two most important refuges - Bunga Forest on the Vumba and Chirinda Forest, were proclaimed Forest Reserves.

After some discussion the proposer and seconder withdrew their motion.

NEW CHAIRMAN'S ADDRESS:

I feel that the Secretary should organise group projects, with members working on the ecology of individual species. Standardised data sheets for the different groups would be a great help to members who were prepared to undertake ecological studies, but who were vague about ways and means. The Secretary tabled a provisional Amphibian Ecological Data Sheet, which is reproduced overleaf).

The business of the Meeting was concluded at 8.40 and the Chairman introduced Mr. B. L. Mitchell (Resident Biologist, Kafue National Park), who gave a short talk on methods of recording ecological data.

Mr. Mitchell distributed illustrations to show the Yangambi classification of Vegetation types for ecological nomenclature, (reproduced below).

This was followed by a general discussion and further informal discussion over tea.

H. A. R. AMPHIBIAN ECOLOGICAL DATA SHEET.

SPECIES: Identified by: Observer:

LOCALITY: Altitude: Map Ref:

HABITAT: Soil Type:

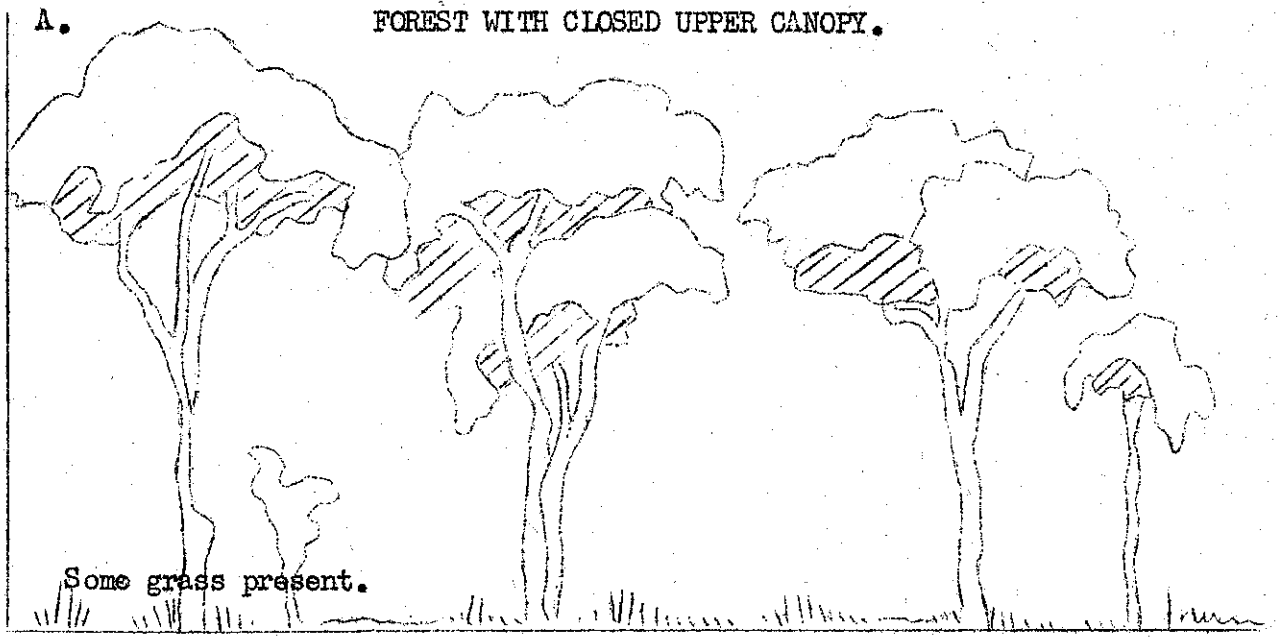
DATE:	TIME:	TEMPERATURE: [1]	WEATHER CONDITIONS: [2]	OBSERVATIONS: [3]

NOTES. 1. Record whether air (shade) or water. 2. Sunny or overcast; light rain; heavy rain; etc. 3. Calling; in amplexus; in water - ? depth; at water's edge; on reeds, lily pads, etc; hibernating - under stone, log, in burrow, etc.

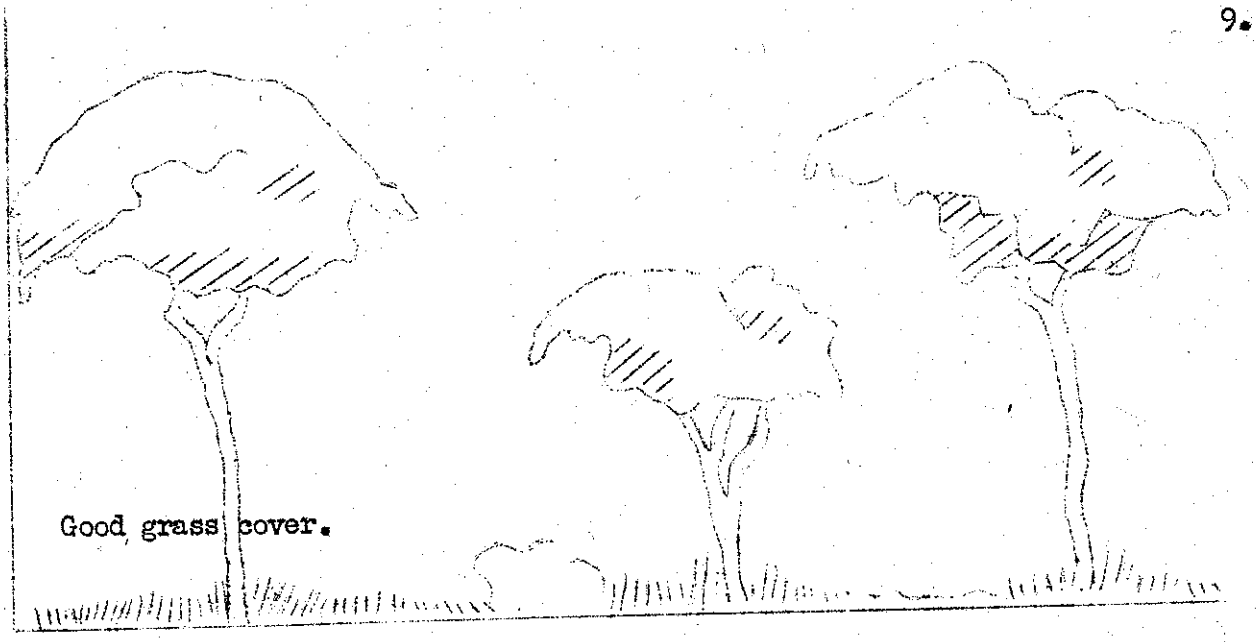
Ecological Nomenclature for Vegetation Types

Yangambi Classification.

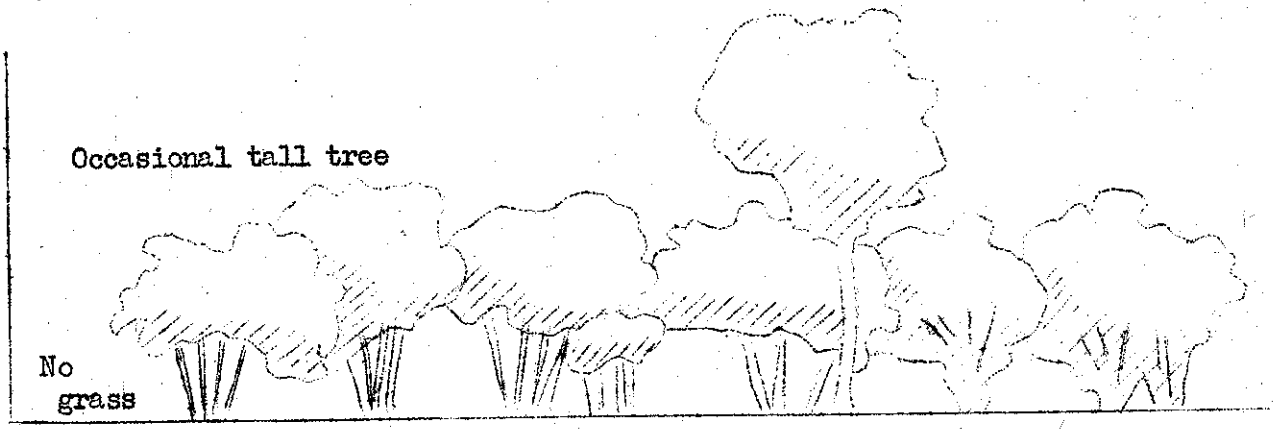
A. FOREST WITH CLOSED UPPER CANOPY.



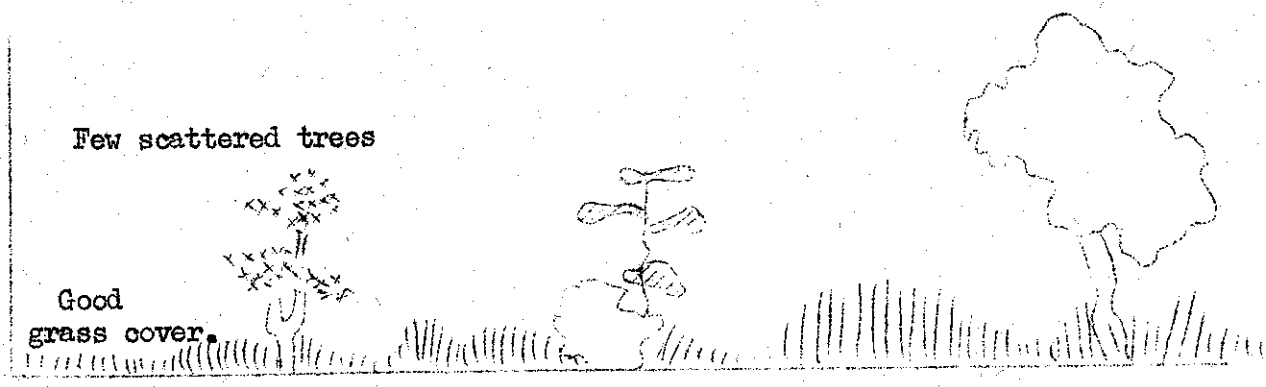
B. WOODLAND WITH MORE OR LESS CLOSED CANOPY.



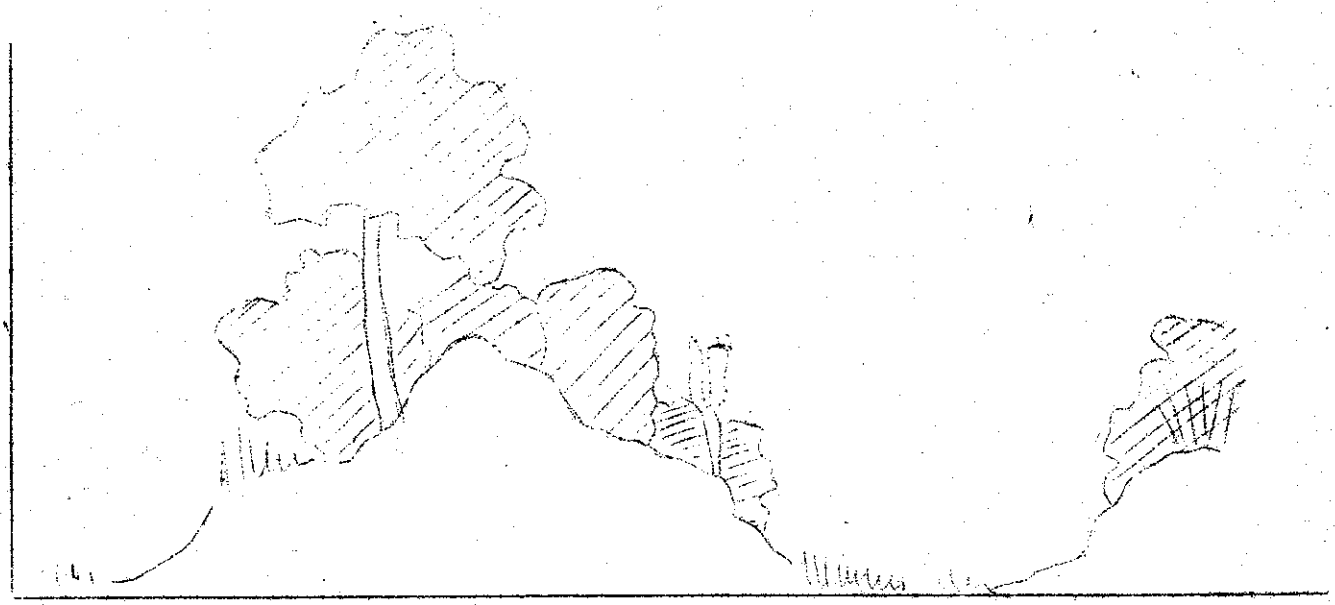
C. SAVANNA WOODLAND - CANOPY NOT CLOSED.



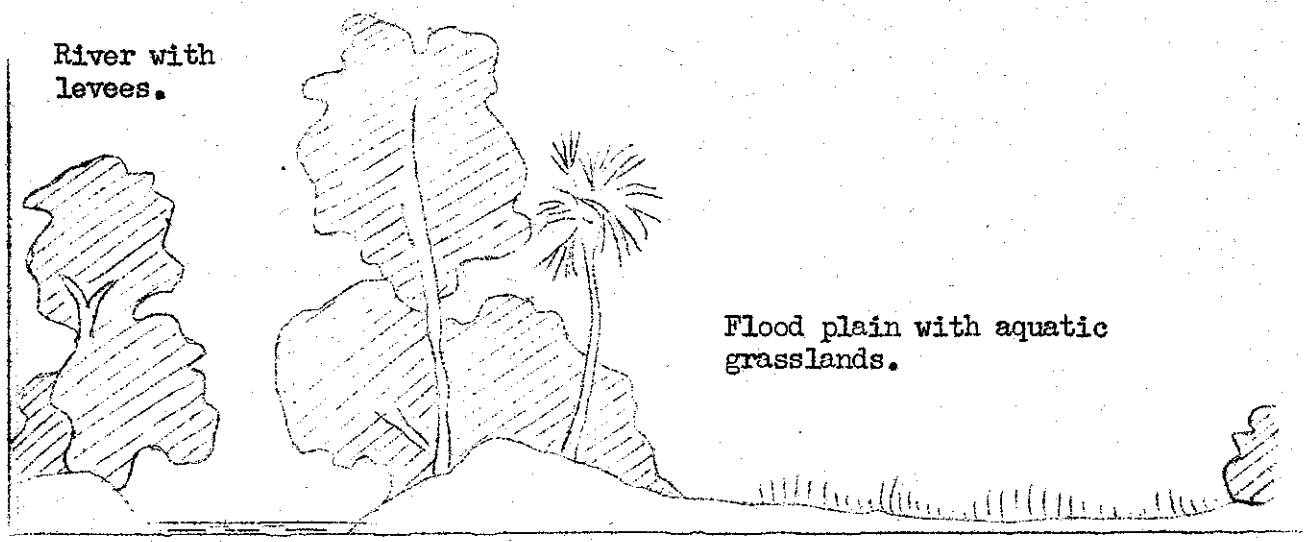
D. THICKET - DENSE SCRUB SOMETIMES IN CLUMPS.



E. TREE SAVANNA.



F. BUSH GROUPS - THICKET OR FOREST CLUMPS ON ANTHILLS.



G. RIPARIAN FOREST.

NEW ADDITIONS TO THE AMPHIBIAN FAUNA OF CENTRAL AFRICA.

(Condensed from "Descriptions of Southern African Amphibians" by J. C. Poynton, Ann. Natal Mus., XV, part 24, issued 29 November, 1963.)

Bufo gariepensis inyangae Poynton Inyanga Rupicolous Toad.

Holotype: an adult male in the Umtali Museum, Southern Rhodesia (UM/H 1289) collected at Inyangani Mountain (8,400 ft.,2,560 m.), Inyanga, Southern Rhodesia, by Mr. D. G. Broadley, 22.xi.1961.

Diagnosis:- In general appearance closely resembling Bufo gariepensis nubicola Hewitt from the Natal Drakensberg, but differing therefrom in the relatively narrower head and longer feet, narrow parotid glands, and relatively smaller subarticular tubercles. Differing from B. g. gariepensis Smith in these same respects, in addition to differing from this form in the same manner as does B. g. nubicola.

Habitat: Collected under stones on wet granite slopes. This form breeds in shallow rock pools and the tadpoles disperse across the wet rock to avoid overcrowding.

Distribution: Inyangani Mountain, the adjoining Chirwe/Gaeresi Ridge, the headwaters of the Inyangombe River and Pungwe Gorge. All localities in Inyanga District, S. Rhodesia.

Bufo vertebralis grindleyi Poynton Chimanimani Rupicolous Toad.

Holotype: an adult male (UN 1259) deposited in the Umtali Museum, Southern Rhodesia (UM 5369), collected on the floor of the Bundi Valley, Chimanimani Mountains (at 5,300 ft., 1,560 m.), Southern Rhodesia, by Mr. J. R. Grindley, zoologist on the University of Cape Town Chimanimani Expedition, February, 1958.

Diagnosis: Closely resembling Bufo vertebralis fenoulheti Hewitt (of which B. fenoulheti rhodesianus Hewitt is considered to be a synonym), but differing therefrom in the dark ventral marbling, the absence of conspicuous light occipital and sacral patches, and the presence, in most specimens, of dentate warts on the back.

Habitat: Open rock faces in the Chimanimani Mountains, where this form breeds in small pools.

Distribution: Chimanimani Mountains, from 5,300 to 8,000 ft., Melsetter District, S. Rhodesia.

Genus NOTHOPHRYNE Poynton

Introduction: A series of nine frogs recently collected by Mr. D. G. Broadley on Mt. Mlanje, Nyasaland, does not appear to belong to any known genus. A new genus Nothophryne, is here erected to contain this material, the type-species of this genus being N. broadleyi n. sp., described below. Three of these specimens have been stained with alizarin and cleared.

Diagnosis:- In general appearance, the specimens show the closest resemblances to Cacosternum capense Hewitt, although the limbs are longer. But the presence of an episternum and an ossified omosternum excludes the material from Cacosternum. In general skeletal structure, the material shows some resemblance to Anhydrophryne, but the omosternum is more strongly ossified, and the coracoids are not broadly expanded, but are similar to those of Cacosternum. Although there are no mature males in the series, there is no indication of strong ethmoidal ossification to produce a digging snout, as in Anhydrophryne. Furthermore, the ovaries contain relatively small eggs. The new material differs even further from Arthroleptella, which is closely related to Anhydrophryne, on account of the long metasternum in Arthroleptella.

The presence of a lirgual papilla suggests a relationship with Phrynobatrachus, but the material lacks the tarsal tubercle of that genus, and the toes are not webbed. The procoracoid bar is not ossified, and in general appearance the material is quite unlike Phrynobatrachus. The series presents a rather unexpected conglomeration of characters shown in a number of closely related genera, notably the external appearance of Cacosternum capense, a skeleton recalling Anhydrophryne, and a lingual papilla like that found in Phrynobatrachus. It is therefore placed in a new genus, and the odd assortment of characters gives the genus its name (Gk.nothus = mongrel).

Nothophryne broadleyi Poynton Mlanje Mongrel Frog.

Holotype: a young but gravid female in the Umtali Museum (UM 4331) collected at Dzole (8,900 ft. = c 2,715 m.), Mount Mlanje, Nyasaland, by Mr. D. G. Broadley, 24.xii.62.

Diagnosis: As given for the genus.

Habitat: Found under moss-covered stones on the bare syenite summit of one of the higher Mlanje peaks.

Distribution: Known only from the type locality.

Arthroleptis troglodytes Poynton Chimanimani Troglodyte Frog.

Holotype: a gravid female in the Umtali Museum (UM 3730), collected by Mr. D. G. Broadley, November 1962, on the Western Chimanimani Mountains, Southern Rhodesia, at about 5,500 ft. (1,675 m.)

Diagnosis:- In general structure very similar to A. wahlbergi Smith, but the toes are slightly longer, lying at the extreme and beyond the range of variation in wahlbergi, and the subarticular tubercles are less developed, not forming conical projections. Differing mainly in the dorsal colour pattern, there being no conspicuous dark patch above groin, and the typical Arthroleptis pattern tends to be broken up by mottling and other irregularities.

Habitat: Found in crevices in the wall of a cave and under stones on the western slopes of the Bundi Valley.

Distribution: Western Chimanimani Mountains (5,500 ft.), Melsetter District, S. Rhodesia.

Hyperolius marmoratus broadleyi Poynton Rhodesian Highveld Reed-Frog.

Holotype: an adult female (UN 3301) deposited in the Umtali Museum, Southern Rhodesia (UM 5370), collected at Umtali by the Natal University Nyasaland-Mozambique Expedition, January 31,1959.

Diagnosis: Closely resembling H. parallelus Gunther and H. albofasciatus Hoffman, but differing from the former in the possession of red lines in the white bands and streaked, not dotted, limbs; differing from the latter in the possession of red lines in the white bands. This form also resembles H. melanoleucus Laurent, but differs in the absence of ventral markings, and a smaller size. It is most closely related to H. marmoratus taeniatus Peters, with which it intergrades. It differs from m. taeniatus in having fewer and narrower white bands.

Habitat: A very common upland form, which breeds in reedbeds and vleis. Outside the breeding season it may be found on trees, house walls, etc., well away from water.

Distribution: The S. Rhodesian highveld, from Mazoe east to Inyanga, south to Somabula and Driefontein. This form also extends onto the Manica Platform of Mozambique.

THE SECOND UMTALI MUSEUM EXPEDITION TO MOZAMBIQUE 1963-4.

By. D. G. BROADLEY.

On this expedition I was accompanied by Luchi Balarin and Augustine (African Skinner). We left Umtali on the morning of 30th November, 1963. The only DOR picked up was a Spitting Cobra just after the Portuguese Customs Post at Machipanda.

We turned off the main road where the pipe-line crossed it at Metuchira. This stretch is rocky and the trench had been dug by a 22RB Shovel with a back-haul bucket. The trench seemed sterile, but a low granite outcrop nearby was found to be inhabited by Platysaurus, an easterly range extension for the genus of about 30 miles. This was a surprise, for east of Gondola rock outcrops are small and very isolated. We returned to the main road and continued until we found the Hume Pipe Company welding teams. I dropped Luchi here to work westwards along the trench, while I returned to the X-Ray Unit caravan, parked the Land Rover,

and then walked eastwards along the trench to meet Luchi. This was another rocky stretch and there were very few reptiles to be picked up. The section of trench ahead of the X-Ray caravan looked more promising, having been excavated by the rotary trench-digger. After collecting 17 snakes we returned to the head of the newly-cut trench and pitched camp next to the excavator. That evening we explored an extensive vlei between the pipe-line and Xiluvo siding. We could hear Leptopelis concolor calling and collected five. All were clinging to grass stems three or four feet from the ground, and were easy to pick out in the beam of a headlamp. The only other frog found was a solitary Hyperolius m. taeniatus.

The next day we made an early start and worked our way along the five miles of open trench between the excavator (which was awaiting spares) and the X-Ray Unit caravan. The yield was disappointing, only 43 snakes, 7 lizards and 113 amphibians. The country was not very different from the Muda-Lemego section, extensive vleis alternating with wooded stretches.

The most interesting snake in the trench was a 4 ft. Black Mamba, pale olive in colour, which Luchi captured without much difficulty.

We decided to move ahead into heavily wooded country near Metuchira on the following day. This was the rocky stretch excavated by the 22RB. It was desolate and five miles produced only 5 snakes, 4 lizards and 8 frogs. A small rock outcrop was swarming with Platysaurus and Mabuya quinquetaeniata obsti and series were collected.

On the 3rd December we tried the Xiluvo section again and got another 27 snakes, 4 lizards and 43 amphibians.

The next day we explored the only remaining length of trench, near Inchope. This had just been dug by the 22 RB, but yielded only 3 snakes, two lizards and 5 frogs.

On the morning of the 5th we checked over the two mile gap between the excavator and the welding teams before returning to Umtali.

The following reptiles and amphibians were collected in the pipe-line trench:

REPTILIA.

SAURIA.

2 Agama cyanogaster
4 Agama mossambica
2 Mabuya maculilabris boulengeri
2 Mabuya varia varia
1 Mabuya striata
4 Ablepharus wahlbergii
5 Riopa sundevallii (large 'afer' form)
2 Gerrhosaurus flavigularis
1 Gerrhosaurus major grandis

SERPENTES

7 Typhlops schlegelii mucruso
12 Leptotyphlops scutifrons
2 Boaedon f. fuliginosus
10 Lycophidion semiannule
8 Philothamnus hoplogaster
1 Philothamnus semivariegatus
4 Crotaphopeltis h. hotamboeia
3 Thelotornis kirtlandii capensis
2 Hemirhagerrhis n. nototaenia
11 Psammophis sibilans
4 Psammophis subtaeniatus sudanensis
1 Aparallactus l. lunulatus
3 Aparallactus c. capensis
3 Calamelaps unicolor miolepis
11 Elapsoidea sundevallii decosteri
1 Dendroaspis polylepis polylepis
1 Atractaspis bibronii
21 Causus defilippii
5 Bitis arietans arietans

AMPHIBIA

2 Bufo regularis
21 Breviceps adspersus
4 Phrynomerus b. bifasciatus
9 Rana (Ptychadena) vernayi
6 Pyxicephalus adspersus
24 Pyxicephalus ornatus
3 Phrynobatrachus natalensis
3 Phrynobatrachus acridoides
3 Phrynobatrachus ukingensis mababiensis

AMPHIBIA (contd).

21	Arthroleptis stenodactylus
1	Hemisus marmoratus
2	Chiromantis xerampelina
5	Afrixalus b. brachycnemis
2	Afrixalus f. fornasinii
1	Hyperolius marmoratus taeniatus
13	Hyperolius c. concolor
3	Hyperolius pusillus
23	Leptopelis concolor
24	Kassina senegalensis

The following amendments should be made in the list of amphibians collected from the pipe-line tranch at Muda-Lemego (H.A.R. Newsletter No. 1.) - for Breviceps mossambicus substitute B. adspersus.
for Rana (Ptychadena) mossambica substitute R.(p.) vernayi,
for Leptopelis flavomaculatus substitute L. concolor

The most striking differences in the composition of the list of snakes collected are:

(1) The absence of Cobras

(2) The 11 Elapsoidea. No Garter Snakes were collected on the Muda-Lemego stretch.

(3) The reduction in numbers of Atractaspis bibronii. Perhaps this species is largely superceded by Elapsoidea?

A NOTE ON THE DOMESTICATION OF AFROEDURA TRANSVAALICA.

By. D. G. BROADLEY.

The African Gecko genus Afroedura is essentially rupicalous, the species nivaria, namaquensis, transvaalica, tembulica and karroica being restricted to fissures in rock outcrops, while A. pondolia has been found in dead trees and under rock fragments.

On the 9th September, 1961, I collected a long series of topotypic Afroedura transvaalica platyceps Hewitt on Baboon Kopje, Umtali. These were taken under thin flakes of granite. As an experiment I released four gravid females on the back verandah of 61 First Street, Umtali. The geckos split up, one moved into my sleeping porch at one end of the verandah, another occupied the outside P.K. (toilet) and found refuge behind the cistern, the other two lived behind a broom cupboard and an old refrigerator standing on the verandah. The only gecko previously in

residence was a Hemidactylus mabouia which had occupied the P. K. before being evicted by an Afroedura.

No hatchling geckos were ever seen, but the adult Afroedura settled down and were frequently seen hunting after dark. Unlike Hemidactylus they are reluctant to venture out onto walls which are directly illuminated by electric light.

Subsequent introductions of geckos were not successful; these were a male Afroedura released on the back verandah and several Pachydactylus bibronii on the front verandah.

Although the female Afroedura normally kept apart, they sometimes congregated in my room and all hid behind the same picture above my bed.

Several months ago the P.K. dweller came to an untimely end when she fell into the lavatory pan. Her 'niche' behind the cistern has since been taken over by another Afroedura and the reshuffle has left my sleeping porch geckoless.

The remaining Afroedura have now been 'domesticated' for over 2½ years. It would be interesting to trace any cases of Afroedura becoming voluntary commensals of man. This would seem likely to occur where houses are built close to granite kopjes.

MORE OBSERVATIONS FROM UMTALI SNAKE PARK.

by

A. C. NEWMAN.

During the Manicaland Agricultural Show in August, 1962 Don. Broadley drew attention to the behaviour of an Olive Grass Snake. This was a gentle rubbing of the sides of the body with the snout, from about midbody down to the vent. This behaviour has been seen in other Olive Grass Snakes, and also in male Puffadder (8.9.63). Eric Davies, a keen schoolboy herpetologist, tells me his Olive Grass Snake does the same. Is this sexual stimulation?

A 4 ft. Olive Grass Snake bit our 'Man Friday', a youth of about 12 years, on the calf of his right leg. After the fun and games were over, we had a look at the bite and saw 3 white thorns! On closer examination the 'thorns' turned out to be teeth, and brought to mind the old belief of putting the site of a snakebite as close to a fire as one can stand; this will have the effect of solidifying the venom (sic). Our hero, Rafu by name, calmly took the 'thorns' out of his leg and laughed when told about the fable.

When angry or alarmed a Water Moccasin usually beats the tip of its tail rapidly on the ground. Similar behaviour was observed in a 3 ft. Spitting Cobra, the first time we have seen this.

On the 7.9.63, during the Baring School Fete, Boomslangs and Vine Snakes were seen to imitate the neck weaving of the Western Green Snakes (Philothamnus irregularis). The actions were not as graceful.

A 30" Western Green Snake was seen to take a medium-sized chameleon by the snout and swallow it. The attack on the chameleon was so quick that it never had a chance to fight. No coils or constriction were used.

Two Cape Cobras given to me by John Visser have settled down and are feeding well on toads. The one is an ivory-white and the other yellow, both fine specimens just under five feet. Another Cape Cobra, given me earlier by John, is a bronze colour with yellowish spots on the head, about three feet long, and a good eater.

A six and a half foot Forest Cobra (Naja melanoleuca) caught by Tim Pavey on the Jersey Tea Estates, is doing very well. It is feeding on dead rats and, unlike other Cobras, this one only takes one rat at a time, at intervals of about a week. After a meal it ignores further food for days on end. I agree with Don that they are intelligent snakes. No striking madly at the glass front of the cage, just a haughty pose with head held high.

'Redmile' the Banded Cobra continues to take dead fish and platannas, and varies his diet with dead snakes and blind snakes (Typhlops).

A five foot Leguaan (V. niloticus) which we have had for fifteen months, does not interfere with the live fish in the moat, nor does another three footer. Both will take dead fish, dead birds and chickens, as well as frogs (Rana oxyrhynchus and R. darlingi). I've seen the big one eat a chameleon that was killed by a Boomslang. Vine Snakes seem to be a delicacy to them, but other snakes in the Pit are ignored. The fish in the moat range from Minnows to ½ lb. Bream and Bass of 1½ lbs, as well as Barbel of all sizes. While on the subject of fish, can any Member explain the reason they lie tilted to the left when stationary. Any comments Prof. Smith?

A 19" crocodile, acquired on the 9.9.63, was first seen to eat when Terry Crow gave it a Cicada on 28.10.63. Thus encouraged Terry offered a small piece of meat, this was taken, as was a tadpole. On the 2.11.63 a small dead mouse was taken. While stalking a tadpole at the edge of its pond a Western Green Snake dived out of a shrub and fastened onto the croc's nose. "What an optimist", was Terry's remark. A few shakes and the snake was dislodged.

Boomslangs and Vine Snakes are feeding on dead birds and dead chickens, as well as frogs (Rana oxyrhynchus, R. darlingi).

Being unable to get any small fish for the Cottonmouths, fillets of Hake were thawed out and offered. This was readily taken. Food supplies are now no problem.

Olive Marsh Snakes (Natriciteres o. olivacea) are feeding solely on tadpoles. Terrapins are taking insects and pieces of meat from our hands.

A 7½ ft. Black Mamba, caught at the Feruka Oil Refinery Site on 27.11.63, took its first rat on 7.12.63, after sloughing the day before. A white rat was offered on 14.12.63; this was readily taken. A 7 ft. Black Mamba, caught at the Odzani River, persistently refused white rats (all that was available at the time) An idea I've had in mind for some time and had discussed with Don, was tried out. This proved successful. The white rat was dusted with cocoa before being put in the cage; the Mamba didn't shy away, but struck and swallowed the rat. This was done once more and now the snake will take any coloured rodents, including squirrels.

The 4 ft. Black Mamba caught by Don and Luchi in the Pipeline trench in Mozambique started eating within a few days after it arrived here at the Park. It is now in Port Elizabeth with John Visser and is eating well. During its stay here it ate five dead mice, including one white one.

All five Mambas at the Park are eating well. Their diet consists of dead birds, dead chickens, rats, moles and mice (dead or alive) and squirrels.

A promised visit to Umtali by John Visser of Port Elizabeth was very much appreciated by us all. John was only in Umtali a few hours when a call-out resulted in the capture of a 6 ft. Egyptian Cobra. The same afternoon John and Alfred Newman went down to the Odzani River and brought back a fine seven and a half foot Black Mamba. Numerous other snakes and frogs were caught during his short stay. The ideas and information given to us by John were very helpful. We look forward to another visit, John.

Ronald Barton was called upon the catch a snake in the asbestos roof of the houseboy's kaia on the 12th February, 1964. He was surprised and delighted to find a magnificent 3'4" Tiger Snake (Telescopus semi-annulatus), the largest recorded for Southern Rhodesia. The snake was deposited in the Umtali Snake Park and has already eaten two adult chameleons and an Agama hispida.

THE THIRD UMTALI MUSEUM EXPEDITION TO MOZAMBIQUE, DECEMBER, 1963.

By

D. K. BIAKE.

AIM:

An exploratory trip to the Manica Platform, adjacent to the main road from Garuso to Changara, to ascertain the distribution of certain reptiles and amphibians in the area.

SITUATION AND TOPOGRAPHY:

This road runs due north from the main Umtali-Beira road for a distance of some 200 miles. It is situated on the Manica Platform due east of the mountainous eastern escarpment of Southern Rhodesia. The road drops from 3,000 feet at Garuso to below 1,000 feet at the Luenha River Bridge near Changara.

GENERAL ACCOUNT:

On Sunday 15th December, 1963, I left Salisbury at 4.30 a.m., and after an uneventful trip joined Don Broadley in Umtali. The party also included Tim Liversedge (a schoolboy zoologist and collector for the Umtali Museum), and Augustine, an African Skinner. We finally completed packing the Land Rover and departed at 9 a.m.

After passing through Customs and Immigration on the Southern Rhodesian and Portuguese Border, we stopped at 10 a.m. for a Psammophis subtaeniatus sudanensis D.O.R. (13 miles from Umtali). We arrived at Garuso at 11 a.m. and set up camp on the mountain overlooking the Pousada de Garuso Inn. Nearby is a small dam and the mountain is heavily forested.

Tim decided to go off after birds, so Don and I set out to reconnoitre a large granite peak on the mountain. On the way we passed through heavy rain forest along a stream, where we collected the bright red millipedes (Chersastus)which are found throughout the forests along the eastern border of Southern Rhodesia. We found the ascent of the peak hard going, especially for me - straight from an office desk. Much to Don's annoyance the Platysaurus that we shot proved to be the 'green phase' of P. i. rhodesianus, which had not previously been recorded east of the escarpment. He had collected the 'red phase' in the Burma Valley and the Vila de Manica area. Near the summit we got Bufo v. fenoulheti.

On the way down Don slipped, and slithered about fifteen feet down the rock face on his back. As he landed at the bottom, the .410 cartridge in the shotgun went off, but although he was lying on top of

the weapon, he came through unscathed. We arrived back at camp at 4 p.m. to have a much belated lunch.

We explored a flat granite outcrop at the foot of the mountain, but there were no Platysaurus to be seen and we only got a few Mabuya q. obsti. We investigated a nearby pond and in swampy ground we got Phrynobatrachus natalensis; P. u. mababiensis and Hyperolius nasutus.

After supper we checked the dam for frogs. Hyperolius m. broadleyi were plentiful and Xenopus (both laevis and muelleri), Bufo regularis and Rana angolensis were collected along the dam wall. Tim excelled himself by catching a Leptopelis flavomaculatus sitting on a leaf beside the stream inside the forest.

We then walked down to the pond at the foot of the mountain, where Don, in his new arm-pit length waders, splashed around happily and collected:- Xenopus l. laevis; X. muelleri; Afrixalus b. brachycnemis; A. f. fornasinii; Hyperolius m. broadleyi; H. c. concolor and Hylambates maculatus. The Hylambates were easily spotted in the extensive patches of water weed, for their eyes glowed red in a torch beam.

MONDAY, 16TH DECEMBER.

We were unable to break camp and get away until 11.45 a.m., due to heavy rain. The first stop was a granite outcrop near Domio Siding, where we got 'red phase' Platysaurus i. rhodesianus and a couple of Bufo v. fenoulheti.

We pressed on for another ten miles and stopped at an outcrop 3 miles past Vanduzi. Here we got a quite different Platysaurus, showing affinities with both wilhelmi and pungweensis. On a kopje just north of the Pungwe River Bridge we collected typical Platysaurus i. pungweensis, much to Don's relief!

We now pushed straight on to within eight miles of Vila Gouveia. Here we pitched camp beside a palm-fringed stream and promptly named it "Vervet Camp", as Tim shot a female Vervet monkey on arrival. Frogs were not plentiful, but Tim produced two surprises - a series of Rana darlingi (previously known only from the Southern Rhodesian plateau) and a Rana uzungwensis (a montane grassland form). These occurred alongside typical tropical forms like Afrixalus f. fornasinii, A. b. brachycnemis and Hyperolius c. concolor.

TUESDAY, 17TH DECEMBER.

Due to animals and birds being skinned we only got away at midday and arrived at Vila Gouveia during the lunch hour, which meant that we had to wait until 2 p.m. in order to purchase torch batteries, etc. at the local store, and fill up with petrol. From here we spotted a large inselberg (an isolated mountain rising from a flat plain) sitting

on the eastern edge of the Manica Platform. We ascertained from the local inhabitants that this peak is called 'Mhanda', and we decided that, time permitting, we would visit it on the return journey.

Shortly after Vila Gouveia we explored an outcrop near the road and got a good series of Platysaurus i. subniger (new for Mozambique), Mabuya q. obsti and Agama kirkii. Here we found 19 Bufo v. fenoulheti and a scorpion (Hadogenes)under a single stone.

We set up a base camp about half a mile beyond the turn-off for Mungari on the new main road to Changara. The area was very dry and had had no rain for some time. Old spoor and droppings indicated that it was a favourite spot for elephant and other big game during the wet season.

That evening Tim and I went out after small carnivores and got a Pyxicephalus ornatus and a Chiromantis xerampelina, both sitting in small puddles alongside the road. We managed to get lost after leaving the main road and it was not until a car passed that we were able to locate the road and become reorientated.

WEDNESDAY, 18th DECEMBER.

We left camp at 9.10 a.m. for the Luenha Bridge and Changara. We stopped some nine miles from camp at a low rock outcrop. Here we got Platysaurus torquatus on the lower slopes and P. imperator higher up. As the temperature was rising rapidly, the lizards were already retiring into the shade of deep cracks. After getting an Agama kirkii we pushed straight on to the bridge. Here no reptiles were in evidence, although Don had previously collected P. torquatus on his way back from Nyasaland in December, 1962. We picked up a Rana abyssinica at the water's edge.

After lunch we pushed on to Changara and had cool drinks, missing a Dwarf Gecko on the verandah of the local Inn. We managed to get one (Lygodactylus picturatus chobiensis) on a tree outside.

On the return journey we had a puncture and while Don and I were changing the wheel, Tim got a Nucras i. ornata. Some 11 miles from camp we examined another rock outcrop and got both P. imperator and P. torquatus. Here we heard a noise like a lion grunting, but this eventually turned out to be a pack of baboons, only one of which appeared to be vocal.

THRUSDAY, 19th DECEMBER.

We set off on foot for a large sheer-sided kopje (3,600 ft.) about a mile down the road from the camp. While passing through a small patch of forest, I found a small and very muddy pool under a rock.

While Don groped around under the rock, trying to catch some platannas which were lurking in the depths, I carried out some drainage operations, with the result that we had about twenty platannas in a gallon of mud. We finally got 6 Xenopus l. laevis and 3 Phrynobatrachus natalensis.

We pressed on and joined Tim at the foot of the rock. While climbing up through thick bush Tim shot a fine Rusty-spotted Genet. We saw a few Platysaurus, all apparently torquatus, but failed to get any. As I was not feeling very fit, we returned to camp. That afternoon, about 5 p.m., we set out again in the Land Rover for the same kopje, but decided time was against us and so turned down the Mungari road where we found a rock-face close to the road, where several P. torquatus were collected as they basked in the rays of the setting sun.

That evening Don and Tim drove south to Guro, where in a smakk stream they collected Xenopus muelleri; Afrixalus b. brachycnemis and Hyperolius m. taeniatus. Don also found a Crotophopeltis h. hotamboeia coiled round a tree stump at the water's edge.

FRIDAY, 20TH DECEMBER.

We struck camp, but our departure was again delayed while Augustine skinned small mammals and birds. We stopped at Guro for petrol and replenished our water supplied. Some three miles further south we stopped and examined another rock outcrop and got both Platysaurus imperator and P. torquatus.

At Vila Gouveia we took a short road due west to a likely looking rock outcrop on the edge of the Inyanga escarpment foothills. We failed to get any reptiles and were forced to retire due to rain, the first we had had since the 16th.

Shortly after Vila Gouveia we turned off the main road onto what we hoped was the right road to the Mhanda inselberg. After crossing several of the characteristic local wooden bridges, which gave me the jitters every time I took the Land Rover across, we came to a village at which the road ended. It was obvious we had missed our turn-off. We started to backtrack, when we spotted a low rock outcrop. Here we got P. i. subniger, which Don thought at first were a new sub-species, as the outcrop he was working over appeared to have nothing but sub-adults.

Moving further back we found the sidetrack which we should have taken and decided to set up camp and press on in the morning.

SATURDAY, 21ST DECEMBER.

Set off on the sidetrack for "Mhanda", but eventually were stopped by a dry riverbed with very steep sides. We decided to proceed on foot, but after about a mile we came to another small native village, where I found the shell of a terrapin (Pelusios subniger). Tim found the shell of a Kinyxs b. belliana in one of the huts and we

were able to purchase this. We decided that the country was too heavily wooded to press on on foot, as without landmarks, we could easily get lost. The mountain, now some 2 miles away, towered some 2,000 feet straight up and appeared unscalable without equipment.

Back at the river, we explored the riverbed and got P. i. subniger on a rock outcrop.

We returned to our camp and collected our equipment. We then moved back to our original "Vervet Camp", south of Vila Gouveia.

SUNDAY, 22ND DECEMBER.

Some 14 miles south of Vila Gouveia we checked for Platysaurus and got P. i. pungweensis. We re-examined the outcrop that we had checked on our way north, where we got further intergrades between wilhelmi and pungweensis.

Eventually we reashed Garuso, where we decided to set up camp on the Mountain. After lunch we decided to inspect the Oil Pipeline trench, some 70 miles down the main road. We arrived shortly after 3 p.m. with a terrific storm brewing.

We explored the trench by Don. walking half a mile along it, while I took the Land Rover for the half mile and left it, Don then picking it up and moving forward. Pickings were poor, however.

We finally got back to camp at Garuso at 10 p.m. and nothing loath, Don shot off to catch some more frogs for display at the Umtali Museum.

The following day we returned to Umtali.