The First General Meeting of the Association was held on 10th September and is dealt with elsewhere in this Journal. Unfortunately only 13 members attended the meeting and very few postal votes were returned, so that although only one vote was cast against the two proposed amendments to the constitution, they failed to obtain a two thirds majority of all H.A.R. members. To streamline voting procedure a new amendment is proposed on page 10 and I appeal to all Members (excluding Associate Members) to use the postal voting form sent out with this Journal. Votes should be posted to me as soon as possible c/o P.O.Box 8006, CAUSEWAY, S.R.

As you all know, for the past 12 months I have been fully occupied with running Salisbury Snake Park, and this has left no time for field trips, research or writing. As this situation seemed unlikely to improve I resigned from the Directorship of Salisbury Snake Park at the end of October. My future post is not yet settled, but I hope to be in a position to spend much more time in the field and also carry out more research into herpetological problems. Dave Blake left the Snake Park at the same time as myself and has taken an administrative post with Wild Life Conservation in Salisbury. Luchi Balarin takes over as Director of Salisbury Snake Park in December.

The Blazer badges have arrived from London, but customs dues make it necessary to increase the price to 62/6, cash with order please. These badges are not available to Associate Members.

Good Hunting,

Donald G. Broadley
Hon. Secretary/Treasurer, H.A.R.
c/o Queen Victoria Museum,
P.O.Box 8006, CAUSEWAY, S.Rhodesia.
NEW MEMBERS
E.G. Morris, P.O.Box 195, SINOIA, S.Rhodesia.
C.R. Owen, P.O.Box 445, LIMBE, Nyasaland.

NEW ASSOCIATE MEMBERS
G.P. Coley, "Sierra", Constantia, CAPE TOWN, South Africa.
P.H. Read, Poste Restante, PLETtenburg Bay, C.P., South Africa.
(Transferred from list of full members).

CHANGES OF ADDRESS
D.G. Broadley, F.Z.S., Hon. Secretary/Treasurer,
c/o Queen Victoria Museum, P.O.Box 8006, CAUSEWAY, S.Rhodesia.
D.K. Blake, Chairman,
Department of Wildlife Conservation, P.O.Box 8365, CAUSEWAY, S.R.
L. Balarin, Salisbury Snake Park, P.O.Box 3489, SALISBURY, S.R.
(With effect from 10th December 1960).
M.R. French, 18 Pungwe Gardens, Wilmington Park, Hillside, SALISBURY,
S.Rhodesia.
P. Fox, Malaria & Bilharzia Research Laboratory, P.O.Box 8105,
CAUSEWAY, S.Rhodesia.
D.T. Crow, 3 59th Avenue, Mabelreign, SALISBURY, S.Rhodesia.
R.C.H. Sweeney, Dept. of Agriculture, P.O.Box 87, ZOMBA, Nyasaland.
Sgt. P. Taylor, c/o Station Sick Quarters, R.R.A.F. Thornhill,
P.O.Box 738, GWELO, S.Rhodesia.
F.J.R. Junior, Dept. of Wildlife Conservation, P.O.Box 8365,
CAUSEWAY, S.Rhodesia.
D. Corton, c/o G. Haylett-Gibbs, 40 Pioneer St., SALISBURY, S.R.
R.H.D. Alves, Burroughs Wellcome & Co., 502 Cecil House, Stanley Ave.,
SALISBURY, S.Rhodesia.
P. Berry, Dept. of Game & Fisheries, P.O.Box 1, CHILANGA, N.Rhodesia.

MINUTES OF THE FIRST GENERAL MEETING OF THE HERPETOLOGICAL
ASSOCIATION OF RHODESIA, HELD AT SALISBURY SNAKE PARK ON 10TH
SEPTEMBER 1960.

The meeting was attended by the following members:
Chairman: D.K. Blake. Secretary/Treasurer: D.G. Broadley.
Members: L. Balarin; R.S. Blaylock; A.J. Boughey; D.T. Crow; J.J. Edney;
Miss E.M. Fletcher; P. Fox; W.A. Menage; H.D. Richardson; M.D. Schmolke;
M.R. French.
The Meeting opened at 8.30 p.m. with the Chairman's address.
CHAIRMAN'S ADDRESS

Ladies and Gentlemen, it gives me great pleasure to welcome you to the first General Meeting of the H.A.R., an event that seemed very remote when the Association was formed in 1957. However, time has passed and we have at last assembled for the first meeting.

Let us take a look at the history of the H.A.R. In 1957 Don Broadley first proposed the formation of a Herpetological Association to a number of interested parties. There was enough support for the idea to warrant the formation of an Association in the Federation and the H.A.R. was duly established.

The first Journal was issued in November 1957, with a list of eight founder members in the Federation. Today, some 12 Journals later, our membership stands at no less than 44 members and 37 Associate Members. A large number of these Associates are in the United States, a fact which is greatly to our credit when one considers that there are approximately 14 herpetological societies there and that our Journal is highly regarded in the U.S.

It is a pity that in the past the majority of our members have specialised in snakes only, even if this has resulted in the addition of some 11 species to the S.Rhodesian list in the last 3 years. I definitely think that some of us should branch out into the fascinating but unfortunately more complicated world of lizards and frogs. These fields have hardly been touched in the Federation and although less romantic than that of snakes, they will prove far more rewarding in the long run.

Another factor which has been neglected by most members in the past is that of organised field trips. The few trips which have been carried out have proved highly successful and enjoyable and I do think that more members should get together and arrange such expeditions.

In closing, I think that we may consider that the Association has proved highly successful and that it will continue to grow and prove itself one of the best organised and enthusiastic Herpetological societies in existence. Thank you.

HON. TREASURER'S REPORT.

The financial position of the H.A.R. is very good. On the 31st March 1960 the credit balance was £75; this has since increased to £112, with £25 in outstanding subscriptions still to come. This enables us to add a typewriter and a filing cabinet to our office equipment, items which are long overdue.

AMENDMENTS TO THE CONSTITUTION

Proposal (a). That the second part of section (g) of Clause 2 of the Constitution be deleted.

After some discussion this proposal was put to the vote and received a unanimous vote in favour. Postal votes were then added, giving the following result:

For .. 17. Against .. 1. Abstentions .. 26. Failed to obtain 2/3 majority.
Proposal (b). That the last part of Clause 10 be amended to read: "All voting shall be by post, except at General Meetings. Members not attending shall be entitled to a postal vote."

This resolution was put to the vote immediately and received a unanimous vote in favour. Postal votes were then added, giving the following result:

HON. SECRETARY'S ADDRESS

Ladies and Gentlemen, since I took over as Director of Salisbury Snake Park last December, I have been too busy with improvements to the Snake Park to make much progress with herpetological research. I still have a backlog of specimens to work through before the start of the new season, but more material is required to enable me to finalise several important papers. The first to appear will be a report on the Herpetofauna of the Kariba Lake area before inundation. I have examined a considerable amount of material, but if any members have specimens from Kariba which I have not seen, I would like to have the additional data.

Captain Pitman and myself have now decided to expand the forthcoming Northern Rhodesian Checklist to cover all the reptiles, not merely the snakes. We are fairly clear on the distribution and variation in the snakes, although material is still required, particularly from Barotseland. We have very few lizards from Northern Rhodesia apart from collections made by Messers Mitchell and Ansell, so I hope N.R. members will try and fill this gap.

Some time in the future I hope to complete Part 2 of "The Herpetology of Southern Rhodesia" - many lizard groups are still in a confused state and more material is needed, particularly specimens of Platysaurus from northern and eastern S.Rhodesia.

It would be appreciated if members sending in snakes for the National Museum study collection would take scale counts for them, so that they only have to be checked once, instead of requiring my usual two or three counts. I cannot stress too much that specimens should be labelled immediately they are collected. Locality data should be as precise as possible. Many rare specimens have been rendered valueless by failure to label them properly. Amphibian specimens are welcome, particularly a variety from one locality.

Turning to the H.A.R. Journal, I must appeal again for more members to try their hand at writing articles. Lately we seem to have been subsisting largely on snake-bite case histories. I have not been able to contribute as many articles as in the past, due to pressure of work. Articles on breeding and feeding are always of interest.

GENERAL DISCUSSION

W.A.Menage said there should be a code of honour among H.A.R. members not to get bitten by venomous snakes. The chairman considered that a code of honour among snakes not to bite H.A.R.
members would be more to the point. The Secretary pointed out that in the case of professionals handling and demonstrating venomous snakes for the public an occasional bite was inevitable.

Luchi Balarin proposed a vote of thanks to the Chairman and the Secretary/Treasurer for their work during the last three years.

GUEST SPEAKER

Mr. Thane Riney, the American Zoologist, talked to the Association on ecological problems, with particular reference to herpetology. He explained various techniques used in the study of ecology and pointed out that when all taxonomic and distributional problems had been resolved there was still plenty of scope for research in life histories, population studies, etc. When collecting a specimen, not only the locality was important, but also the ecological niche occupied by the animal. Mr. Riney illustrated his talk with several slides.

HYPOPTOPHIS WILSONI, A NEW ADDITION TO THE SNAKES OF NORTHERN RHODESIA.

By D.G. Broadley

At 8 a.m. on 29th November 1959, Frank Ansell found a small black snake on a path at Kabompo Boma and preserved it for the National Museum; this proved to be the first specimen of Hypoptophis wilsoni katangae recorded from Northern Rhodesia. A second specimen was collected at Kabompo on 15th December 1960.

Hypoptophis wilsoni, the only species in the genus, was originally described by Boulenger in 1908 from Sankuru, in the southeastern Congo. This is a rear-fanged fossorial species, uniform black, but easily recognised because of its very short body and consequently low ventral count compared with Calamelaps, Atractaspis, etc. Other good identification characters are the unusual pointed head shape and the single subcaudals.

Michellia katangae, now regarded as a race of H. wilsoni, was described by Muller in 1911 from Kituri, in the Congo province of Katanga. It has since been recorded from the provinces of Lualaba and Tanganika. It differs from the typical form in the lower ventral and subcaudal scale counts. Also the rostral and nasal arc normally separated by the first labial and internasal, while in the typical form rostral and nasal are in contact.

Variation in the two races:

<table>
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<tr>
<th></th>
<th>Ventrals</th>
<th>Subcaudals</th>
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<tr>
<td></td>
<td>Males</td>
<td>Females</td>
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<tr>
<td>wilsoni</td>
<td>106-109</td>
<td>116-118</td>
</tr>
<tr>
<td>katangae</td>
<td>102-103</td>
<td>111-113</td>
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Upper labials 7, third and fourth entering the orbit, sixth largest; lower labials 7, the first four in contact with the anterior sublinguals, the fifth largest; preocular 1; postoculars 2; temporals 1+1; scales in 15 rows at midbody; anal entire; subcaudals single.
The two specimens from Kabompo Boma are assigned to *katangae* because of their geographical location; otherwise the male would key out to *wilsoni* and the female to *katangae*. The critical data are:

- **NMSR/M.4332**, male - 106 ventrals; 40 subcaudals; rostral and nasal in contact. Length: 150+36=194mm.
- **NMSR/M.4433**, female - 113 ventrals; 33 subcaudals; rostral and nasal separated. Length: 445+95=540mm. (A record for the race, but the maximum recorded length for *wilsoni* is 620 mm.).

No information on the diet of this species is available at present, but it has long fangs which would suggest that it feeds largely on tough-skinned Typhlops and fossorial lizards. *Typhlacontias ngamiensis* occurs at Kabompo and this small limbless skink would be a suitable prey for *Hypoptophis*.

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**SOME FURTHER RECORDS OF PHILOTHAMNUS ORNATUS FROM SOUTHERN RHODESIA.**

By D.G. Broadley.

When the first part of my "Herpetology of Southern Rhodesia" was published in 1959 only a single specimen of *Philothamnus ornatus* was known from Southern Rhodesia. This snake from Reitfontein, Salisbury, differed from Northern Rhodesian material in having the fourth, fifth and sixth upper labials entering the orbit instead of the third, fourth and fifth. This suggested that there might be a recognisable southern race of *ornatus*. Further material collected last season indicates however, that the upper labial formula is very variable and Southern Rhodesian specimens cannot be separated.

The only adult snake collected (NMSR/M.4033) was a specimen found D.O.R. near Waddilove Mission, Wedza by Brian Rickson. This snake measures 613 (435+178) mm. A small specimen (NMSR/M.4174) was brought into Salisbury Snake Park from the vlei just behind the Park and a slightly larger snake (NMSR/M.4175) came from Highlands Park, Salisbury. Two more specimens have been captured by H.A.R. members. Bill Armitage took one near Mount Darwin, which escaped while he was moving camp; Alex Siemers got another near Mermaid's Pool, which also subsequently escaped.

The range of variation for the four specimens now in the National Museum collection is as follows: Midbody scale rows 15; ventrals 148-161; anal divided; subcaudals 86-96; upper labials 8-10, the third, fourth and fifth (2 snakes) or fourth, fifth and sixth (2 snakes) entering the orbit; lower labials 9-10, the first five in contact with the anterior sublinguals; preocular 1; postoculars 2; temporals 1+1 (1+0+1 on one side of the Wedza snake). A well defined brown dorsal stripe, narrowly edged with yellow, is present in all four snakes.

Any further records of this species from Rhodesia are of great interest and all specimens should be carefully preserved.
VENOM EXTRACTION FROM A BACK-FANGED SNAKE (DISPHOLIDUS TYPUS).

By D.K. Blake.

Until recently the only known method of extracting venom from back-fanged snakes consisted of removing the venom glands from a freshly killed snake and macerating the glands on a glass plate to obtain the venom. The disadvantages of this method are obvious, in that the product does not consist entirely of venom, but contains a considerable amount of impurities. If the glands are not removed soon after death the venom may even start to decompose.

As most of the back-fanged snakes are considered harmless to man, the only species whose venom is in great demand is Dispholidus typus. The need for a quantity of this venom for serum manufacture has been heightened in recent years by the death of Karl Schmidt at Chicago and the near demise of D.G. Broadley as the result of bites received from D. typus.

In May 1960, Richard Alves and myself discussed several methods in which venom could possibly be extracted and these were basically as follows:

1. Anesthetising the snake and then slipping a small plastic tube over the fang and extracting the venom by suction.
2. Inducing the snake to bite into a plastic tube containing a partial vacuum.
3. Inducing the snake to bite a plastic sponge and then washing out the venom with distilled water.
4. "Milking" in the normal manner used for elapids.
5. Inducing the snake to bite a hard rubber block, any venom left on the surface of the black is easily scraped off. (A method suggested to Broadley by Dr. Mason of the South African Institute for Medical Research).

Methods 2 and 5 were tried out and proved unsuccessful. With Method 2 a thin plastic tube collapsed when a slight vacuum was drawn and a boomslang failed to get his fangs through a heavier tube. Method 5 failed to yield any venom as the boomslangs would not bite properly.

Method 1 has not been tried as I have not had the facilities and also I considered the method to be both finicky and dangerous. Method 3 would probably produce some venom, if a way of extracting the venom from the sponge could be worked out with the minimum of wastage.

When method 2 was tried, although no venom was obtained, drops of venom were observed to form on the fangs, only to be withdrawn again when the snake ceased to chew through the plastic membrane. This method was then modified by placing a little distilled water in the glass and venom was at last obtained in the following manner:

The snake is induced to bite a plastic covered glass containing approx. 2 c.c. of distilled water. This is swilled around the fangs and as venom is mixed with the water it becomes slightly opaque.

The diluted venom is then transferred onto watchglasses in order to induce rapid drying in the dessicator to prevent the venom
EGG LAYING BY A LEOPARD TORTOISE (TESTUDO PARDALIS BABCOCKI) IN NORTHERN RHODESIA.

By V.J. Wilson.

At 3.15 p.m. on 23rd June 1960 at Fort Jameson, I found one of my large female Leopard Tortoises digging a hole with its hind legs. When I found her digging, the hole was already 5 inches deep and about 4½ inches in diameter, a thick fluid dripped from her tail and the soil was all damp in and around the hole. The nails on her back feet were used for digging and the loose earth removed by using the sole of the foot as a shovel. Each time she removed a little earth she would then lower the other back leg into the hole and the same operation followed. Never once did she use the same leg twice in succession but each time changed legs, only the back legs were used.

At about 4.30 p.m. she stopped digging, the hole was now 6½ inches deep and the earth at the bottom of the hole was dry and hard. She then stood with her tail over the hole and moved it from side to side. The tail was then forced back, she raised herself on her back legs and the first egg was laid. This was not suddenly dropped onto the hard earth at the bottom of the hole (which would surely have cracked the egg) but lowered in a very thin membranous bag which ruptured as the egg was lowered. The second, third and fourth eggs were all laid in the same way. After the fourth egg there was an interval of about two minutes. The eggs were neatly lowered into the hole (see Fig. 1). The fifth egg was then laid and placed on top of the first four eggs (see Fig. 2). The right leg was then lowered into the hole and after 4 minutes she managed to move the 5th egg to the one side of the hole, but still resting on top of two other eggs (see Fig. 3). The right leg was removed and the left leg lowered into the hole, then she proceeded to make a gap in the centre of the first four eggs to enable the fifth egg to lie on the ground (see Fig. 4). This operation took another 5 minutes. The left leg was removed and the right leg lowered into the hole, the fifth egg was then moved into the position opened for it in the centre of the first four eggs. The eggs now lay as shown in Fig. 5. The next 15 minutes were spent lowering each leg in turn into the hole to see if the eggs were correctly placed.
At 5.45 p.m. she commenced scraping damp earth into the hole to cover the eggs. After the hole was filled with earth, dry grass, leaves, etc were scattered over the hole. The entire operation was completed and she moved away from the site at 9.45 p.m. Not once during the entire operation did she move her body more than about 3 inches and the front legs were anchored to the ground to hold her steady. The site chosen to lay the eggs was in the open but amongst dry leaves and grass.

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CASE HISTORY OF A BITE FROM BITIS A. ARIETANS IN BULAWAYO.

By R.S. Bleylock.

I was bitten by a three foot puffadder at 1.20 p.m. on 12th October 1960. One fang entered the middle finger of the left hand, it slid down the finger starting about \( \frac{3}{4} \)" below the finger nail and eventually stopping and penetrating at the knuckle. It left cuts of \( \frac{1}{2} \)" and \( \frac{3}{4} \)" respectively on the upper surface of the finger. These bled profusely. Suction, by means of mouth, was applied to aid this bleeding. 1.22 - A tourniquet of string was applied to the left wrist. 1.23 - 2 c.c. of S.A.I.M. R. Polyvalent Serum injected into knuckle of bitten finger - could not inject more due to defective syringe.

Arrived at Bulawayo General Hospital at 1.30. Tourniquet taken off wrist, replaced with one applied to left biceps. Given approx. \( 2\frac{1}{2} \) c.c. of polyvalent serum in top of left hand, \( 2\frac{3}{4} \) c.c. in upper side of left forearm, 5 c.c. in left deltoid and 10 c.c. in right buttock.

2.00 p.m. Pulse 82. Tourniquet removed, which brought much relief. Given an anti-tetanus injection. Base of middle finger discoloured, hand very swollen and throbbing. 2.35 - Pulse 64, Temperature 98.4. Given 2 Kodene tablets and 3 Anthesin tablets which kill the pain and have an anti-toxic effect. The swelling gradually continued up the arm and reached the shoulder about 9 p.m. Gland under the arm pit hurt a little. The hand was very painful until about 3.30 p.m. 6.00 - Penicillin injection. Felt sick all night but did not vomit.

13th October. 5.30 a.m. Pulse 96. 6.00 - Penicillin. 7.00 - Temperature 100, but rose to 103 by mid-afternoon. 8.40 p.m. - Pulse 72, temperature 100.2. Given 2 Anthesin tablets. 8.45 - 2 Anthesin tablets.

14th October. 1.00 a.m. Penicillin. 5.15 - Temperature 97.2. 5.45 - Penicillin. 8.45 - Pulse 72, temperature 98.4. Given an Anthesin tablet. 12.00 noon - Penicillin and an Anthesin tablet. 3.30 p.m. Pulse 72, temperature 98.4. 4.30 Anthesin tablet. 5.00 - Penicillin, two kodene tablets and two sleeping tablets. Couldn't sleep until 12.30.

15th October. 6.00 a.m. Penicillin. 9.00 Anthesin tablet. 10.00 discharged from hospital. Arm almost down to normal, but hand still swollen and arm in sling. Course of penicillin continued until 19th.

20th October. Hand almost normal, finger slightly discoloured and stiff. Arm out of sling. Started a course of anti-serum reaction tablets. There were never any signs of haemorrhage.
HERE AND THERE

LAKE MACILWAINE, SOUTHERN RHODESIA

Alex Siemers collected several large amphisbaenids near the dam wall at Lake MacIlwaine about two years ago. These unfortunately escaped later, but not before they had been photographed. From this photograph the lizards appear to be referable to *Monopeltis*, a genus not recorded from anywhere near Salisbury, previous records being from N.W. Matabeleland and the Zambezi Valley. H.A.R. Members in the Salisbury area are urged to look out for these unusual reptiles so that their identity can be established. The best time to look for them is after heavy rain, which brings the amphisbaenids to the surface.

SHIRE VALLEY, NYASALAND

Roy Owen has supplied two more localities for *Vipera superciliaris*. The first Nyasaland specimen, dealt with in the last Journal, was actually captured by Blaylock and Owen together during a crocodile hunting safari down the Shire River. Since then Roy has taken two more specimens of *superciliaris*, one from 10 miles north of Liwonde and another from the Matope swamps, 30 miles south of Liwonde. Roy reports that the Matope swamps is the only area where he has encountered *Naja melanoleuca*. He has recently taken two specimens, one of which is now exhibited at Salisbury Snake Park. The local Africans claim that this cobra is only found in the swamps, where it is decidedly aquatic in habits.

AMENDMENTS TO THE CONSTITUTION. By the Hon. Secretary/Treasurer.

Owing to apathy among some members, neither of the amendments to the Constitution proposed at the first General Meeting were passed. The number of postal votes returned was very disappointing. The time has come for a purge and consequently those members who have still not paid their subscriptions will not receive this Journal, instead they will get a final demand for their subscription and if this is not paid within one month it will be assumed that they have resigned from the H.A.R. Dead wood must be cut out if the Association is to flourish and members must make a contribution to the Association's work if they expect to get anything out of it.

It is obvious that the present system of voting is not satisfactory and the following proposal has been drawn up to remedy this.

Clause 10 of the Constitution to be deleted and the following clause substituted:

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. Provided that not less than 51% of all Association members cast their votes.