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NEW H.A.R. MEMBERS

- A.G.Shepherd, c/o Inyangani Estates Ltd., P.Bag 2, Inyanga, S.R.  
 H.P.Walsh, c/o Inyangani Estates Ltd., P.Bag 2, Inyanga, S.R.  
 R.B.Yeadon, 5 Conolly Green, Redcliff, S.Rhodesia.  
 P.H.Read, Dept. of Game & Tsetse Control, P.O.Kasempa, N.Rhodesia.  
 J.E.Newby, P.O.Box 735, Kitwe, N.Rhodesia.  
 R.S.Blalock, 48 Duncan Road, Suburbs, Bulawayo, S.Rhodesia.

RESIGNATION

Miss. P.Galland

CHANGE OF ADDRESS

D.G.Broadley, National Museum, P.O.Box 240, Bulawayo, S.Rhodesia.

JOTTINGS FROM COBRA CORNER

Dear Member,

This Journal appears later than usual mainly due to my transfer from Bembsi to the edge of Bulawayo at the end of July. Having set up my new camp 9½ miles from Bulawayo on the Old Essexvale Road I had to turn to preparations for the Bulawayo Show Snake Park; building new cages and painting old ones and then a last minute dash down to Balla Balla in search of cobras for the Show (this yielded a fine 4'9" Naja n. mossambica). Consequently I am now a month behind with correspondence and routine identification of material. Several articles that I intended to write up for this journal must wait till the next issue. This includes a report on a flying visit to Beitbridge over Rhodes & Founders weekend, when Luchi Balarin and myself collected 43 Afroedura transvaalica and a resume of the three races of Dispholidus typus found in the Federation. However Charles Sweeney and Desmond Vesey-FitzGerald have contributed interesting articles and there are three useful case histories.

Good Hunting,

Donald G. Broadley,  
 Hon. Secretary/Treasurer, H.A.R.

NOTES ON RHAMPHIOPHIS OXYRHYNCHUS ROSTRATUS (PETERS) IN NYASALAND.

By Charles Sweeney.

The Beaked-Snake, or Sharp-nosed Snake as it is sometimes less suitably called, is a common back-fanged Nyasaland species that is found also in S. Rhodesia (Broadley) and Mozambique (Sweeney). It is called Cidyamsana by the people of the Lower Shire River valley and Kasunjumere by the Yao further north in Nyasaland, although it is mixed by many Africans with Psammophis sibilans and occasionally other species.

It is a relatively large snake, attaining a maximum length of some 5 feet, although specimens over 4 feet are relatively very rare. The longest specimen I have taken in Nyasaland measured 1493 (1080 - 413) mm., but the mean length of 23 specimens was 850 mm. (excluding juveniles).

In the field the Beaked-Snake is sometimes mistaken for Psammophis sibilans, the Sun-Snake<sup>x</sup>, which it superficially resembles, particularly in colour, size and ability to move quickly. It is at once readily distinguished from the latter by the greatly enlarged rostral that forms a bird-like beak protruding well beyond the apex of the lower jaw, and the characteristic blackish or dark brown oblique stripe on each side of the head running through the eye.

The head is narrow and elongate oval in shape and there is no distinct neck. The eye is small with a round pupil. The superior labials number 7-9 and the 4th and 5th, or the 5th alone, enters the orbit. There are 1-3 (normally 2-3) preoculars and 2-3 (normally 2) postoculars; a loreal is present.

The body is sub-cylindrical and basically the colour of the dorsum is uniform grey but there is almost invariably a suffuse warm brown wash or the colour is a warm brownish-grey, or occasionally somewhat pinkish-brown. The dorsum of the head and neck is usually darker than the rest of the <sup>body</sup>, particularly in younger specimens and almost blackish in some. The dorsal scales are each edged with dark brown or blackish, especially anteriorly, and the scales are not imbricated. The outer rows of dorsals become lighter in colour and the outermost row on each side become almost the same colour as the whitish or creamy-white ventral plates where they meet. The upper lip is pale like the lower lip and chin.

In general the colour of this species tends to vary little in different specimens and numerous specimens the writer has found in Nyasaland, Mozambique and the Sudan have been very similar in appearance. It appears to be one of the least variable of African snakes in colouration.

There are 17 dorsal scale rows; 148-192 ventrals; 87-113 pairs of subcaudals and the anal scale is divided.

Although previously apparently recorded in Nyasaland only from the Fort Johnston area, the writer has recorded this species also near Salima and near Ntakataka on the Lake; and in the Lower Shire River

<sup>x</sup>Although usually called the "Hissing Sand-Snake" in English (a name that is singularly inappropriate, since this species does not hiss nor is it confined to sandy country) I prefer to call this snake from the Cinyanja, Kjoka Zuwa or Sun-Snake, a much better name since it is a diurnal snake quite frequently found basking in the sun.

valley where it is particularly common and widely distributed; on the Lisungwe River near Matope and on the Nyika Plateau. During the last three months of 1956 I recorded the Beaked-Snake twice in the Lower River; in 1957 twenty-two times; in 1958 thirteen times and in 1959 to date seven times.

All the above records with the exception of the Nyika are for places below 2,000 feet and the Beaked-Snake has been regarded as a completely lowland form until August 1958 when the author, to his surprise, took two specimens on the Nyika Plateau some 7,000 feet above sea-level. Both these specimens were discovered in the open, lying on a roadway about 500 yards apart and taking advantage of the weak evening sunlight on the bleak wind-swept plateau after a day of icy wind and cloudy conditions. Both were virtually incapable of movement due to the low temperature and made no attempt to escape when picked up.

The Beaked-Snake is a semi-burrowing diurnal species and in my experience is a very docile creature that never attempts to bite and may be handled without difficulty, although it is of quite a nervous disposition and readily alarmed.

I have found it either by accident in the open or taken it from holes. As a lair it normally utilises old deserted mammal burrows, such as those made by many rodents; insect excavations such as deserted termite mounds and even occasionally the holes made by large crickets (Brachytrupes membranaceus) where these lead to more extensive cracks or soil cavities; piles of old bricks and old brick kilns, particularly when these have been partially buried in soil; below fallen tree-trunks and amongst the roots of large fig-trees or hollow baobabs, Sterculia africana, and suchlike places. I also once found a young specimen halfway up a high river bank in the burrow of a Carmine Bee-eater (Merops nubicoides) on the Ruo River at Chiromo.

From my records the Beaked-Snake normally takes up residence in a lair of the type described above and often uses the same retreat for the rest of its life if not disturbed.

I have under observation at the present time one 3½ foot specimen that is living in a pile of buried bricks and stones on the Government Experimental Station at Makanga. This snake has lived in the same abode now for almost 2½ years at least. From the time that it was first observed it was not interfered with and it has not left the locality; it is readily recognised as the same snake by a scar on its body.

My observations show that it forages for food chiefly during the late afternoon, but it is sometimes abroad at midday even in hot, sunny weather although it does not emerge every day. Since from early morning until midday there are numerous Africans in and around the nearby buildings, the snake has probably become accustomed to remaining in its retreat until the afternoon, when the area is deserted of people and it can move without molestation. It has not been seen more than 300 yards from its lair and normally seems to travel only in and around the various farm buildings and a small grassy copse nearby.

If alarmed and in the open it makes a bee-line for its hole, a narrow crevice between two bricks embedded in the ground and leading to an extensive area of buried debris. In cold, overcast weather it normally remains below ground and it always retires before sundown.

This particular specimen has been noted to feed on lizards (Mabuya striata and M. varia) that are common round the buildings, and amphibians (Rana oxyrhynchus and - once observed during rain migration - Xenopus muelleri). It has not been observed to feed on other animals, but probably eats young rodents (Rattus natalensis, the Multimammate Rat, occurs in and around the farm buildings for example).

In captivity here it has been found that this species lives readily on skinks (Mabuya spp.) and frogs, and occasionally will eat small rodents (Saccostomus campestris and young Lemnicomys griselda have been offered and accepted from time to time) and one specimen ate a young shrew (Crocidura sp.). In my experience this species much prefers lizards (skinks) to other prey and it chases and catches these in a similar manner to that of Psammophis sibilans. However, it has been recorded elsewhere as feeding on other snakes, birds and beetles as well, and D.G. Broadley mentions in a letter that his Kariba specimen has taken two small birds but ignores rats and lizards. I have not attempted to feed any of my specimens on birds.

The Beaked-Snake is an oviparous species that lays a clutch of up to about a dozen eggs, the usual number being from six to ten. Each egg varies in length by as much as 10mm. (35mm. to 45mm.) and in the Lower Shire region of Nyasaland the eggs are deposited mainly in December and January according to my few records. A clutch of 8 eggs of this species was found in an old brick-kiln in December, 1957 and 4 from this clutch were reared, the hatchlings emerging in late April, 1958. Two other clutches were found in December and January, but failed to hatch. Seven eggs were laid by one captive female, but also failed to hatch. The feral clutches were all very well hidden and only discovered by accident. The juveniles are about 6½ inches long on hatching.

In captivity the Beaked-Snake will swim and dive readily and it requires to drink quite frequently. Feral specimens have been noted to drink as well, and the specimen under observation at the Experimental Station mentioned above often takes a drink before starting its quest for food.

There seems little doubt that the Beaked-Snake is a purely terrestrial species and to my knowledge it has never been discovered climbing trees or bushes. For this reason I do not think that its normal prey can include many birds, especially in this region where ground-nesting birds are virtually absent. It may, however, sometimes catch small ground-feeding birds such as the common Cordon Bleu, although I have found no birds in stomach analyses.

In captivity the Beaked-Snake will sometimes climb readily and it will rest in small bushes if these are available in a vivarium, in a similar manner to the Sun-Snake.

The Beaked-Snake has a habit that is usually associated with arboreal snakes, however. This is an ability to swell the neck region. As in the Boomslang (Dispholidus typus) the swelling is cylindrical and not dorso-ventrally compressed as in the cobra, although, unlike the Boomslang, the Beaked-Snake does not seem to be able to swell more than the neck and a small portion of the anterior body and the swelling is not great. Possibly if violently excited it might be able to produce a greater expansion, but it was only after a year or

more of familiarity with this species that the writer observed this phenomenon and a number of specimens have refused altogether to react in this manner since. It is certainly only with the greatest reluctance that the Beaked-Snake will exhibit at all and, like other snakes with this ability, it does so only in anger and presumably in an attempt at intimidation.

Like Philothamnus irregularis and some other snakes, the Beaked-Snake will often raise its head and 9-12 inches of the anterior body to a vertical position when moving slowly along or when stationary. This is done in order to obtain a better view, apparently, and in spite of its rather small eyes, this reptile can detect movements from a considerable distance. A feral specimen was observed to spot and give chase to a skink when the latter was some 18 feet away, the snake being attracted in the first place by a movement on the part of the lizard. Captive specimens have shown the same alertness when hunting.

#### THE WATER COBRAS OF MPULUNGU. By Desmond Vesey-FitzGerald.

Mpulungu is the northernmost township in the Federation and the only port of Northern Rhodesia, although one supposes this claim may soon be challenged on Lake Kariba. To Rhodesian herpetologists the place is of interest as the home of the Water-Cobra, Boulengerina annulata stormsi, which is endemic to Lake Tanganyika. My friend, the well-known student of reptiles, Mr. C.J.P. Ionides, who has sought water cobras at many places round the lake, assures me that he has never found them to be so common as at Mpulungu. Certainly his visit to us last year will be long remembered, especially as he started his snake catching operations on the day the S.S. Liemba was in port.

Iodine, to give him the name by which he is known throughout East Africa, certainly knows his job and came well prepared for his exploits. Armed with snake-sticks and tongs, bags and boxes, he posted his staff on the jetty which is constructed of loose boulders. The cool of the evening and morning was the best time for the hunt and except for the fact that Iodine was kept running backwards and forwards from one end of the jetty to the other answering view-holloa's

from the bystanders, it was the easiest snake catching excursion I have ever witnessed. The Water Cobras must be extremely abundant at Mpulungu because he soon caught a couple of dozen without seemingly reducing the population to a noticeable extent.

His method was very efficient. As soon as any part of a snake was seen it was grabbed in a pair of tongs on the end of a long pole, the tongs being closed by pulling a wire which could be clamped down tightly so that the grip was secure. As soon as this manoeuvre was performed a trial of strength began. Some of the snakes were over seven feet long, and such monsters wedged themselves among the rocks with terrific power. During the struggle further holds were obtained on the snake and eventually, perhaps after part of the structure of the jetty had been removed, the great serpent would be landed among the scattering bystanders! Iodine always handles poisonous snakes himself, he never lets his numerous staff run any risk of being bitten. With blacksmiths tongs he now pinned down the irascible reptile and with a bag turned inside out over his hand he seized its head.

Glove-like the snake was then enveloped in the bag and the prize was securely tied up.

Iodine's snakes go all over the world, indeed he must be one of the most active suppliers of live reptiles for every scientific and educational institute and the importance of his work is perhaps not appreciated by many people. Indeed how can one expect people who habitually kill a snake to appreciate a person who practically never harms one? But like so many people who are getting on with a job he is irked by petty regulations. And in these I tried to help him. The laws of our Federation state that one must get a permit to export any produce from the territory, so I went demurely to the customs authorities to ask for the necessary export permit on his behalf. I got it alright and was given to understand into the bargain that if I didn't take myself and the snakes to the most distant country on the globe in double quick time, some other Federal law would be applicable. The next regulation proscribed that all live-stock for export must be examined by a veterinary surgeon. My application for this service led me to believe that my stock would not remain alive for very long if I produced it for inspection! By contrast the airways company was most obliging and expedited the dispatch of the specimens from their office as soon as humanly possible!

Only one problem remained to be solved and that was how to get some really good photographs of Boulengerina. Obviously there were difficulties to photographing the snakes in the water and on land the surroundings would be most unnatural. The squash court at the Abercorn Club provided the perfect answer, and moreover this was an environment that was not likely to be frequented during normal working hours by sportsmen who might object to it being used as a snake pit. However I noticed that the spectators gallery was thronged with people who had found it convenient to take the morning off in order to see the fun!

#### CASE HISTORY OF A BROWN MAMBA BITE IN NORTHERN RHODESIA.

By P.H.Read and D.I.Foster, M.D. Edited by D.G.Broadley.

Mr. P.H.Read of Kasempa was bitten on the left ring finger at approx. 3.00 in the afternoon of June 17th 1958 by a Southern Brown Mamba (Dendroaspis p. polylepis) which measured 10'5½". While the mamba was being transferred from a sack to a cage it struck through the sack and one fang penetrated the finger, leaving a bleeding puncture. The victim sucked the puncture and spat out the blood.

He was taken to Kaonde Hospital at the nearby Mission, where he arrived within 5 minutes of being bitten, by this time his throat was very painful and he had difficulty in swallowing. A laceration through the fang puncture was made and the blood was sucked out. The patient complained of severe pain in the bitten finger. Several cc's of polyvalent antivenene serum were injected into the finger and the remainder of the 5 cc ampoule was injected into the buttocks.

The patient's condition generally was good in spite of the shock, his blood pressure did not fall remarkably. Within half an hour of the bite the patient complained of severe tightness of the chest and had obvious difficulty in breathing. A short time later he began to show marked spasms of his skeletal muscles. He was given a further 5 cc's of serum.

The patient complained of severe pain in his finger and the digit began to swell markedly, later the swelling extended to his entire hand. To release the pain it was necessary to give him pethidine. Later the tip of his finger became gangrenous and sloughed off. It took several weeks for this to heal and a year after the bite the patient has no finger-print on the bitten finger.

After his initial respiratory distress and spasms the patient rested comfortably for several hours. About 7.30 in the evening he again developed trouble with breathing and had muscular spasms. He was given another 5 c.c. of serum and sedation. Throughout the evening he had several other minor attacks, but slept reasonably well and the next day looked and felt much better. As a result later that day he was permitted to return home. Within an hour of his return he began to have respiratory distress again with muscular spasms. He was returned to the Hospital where he was given calcium gluconate intravenously and sedatives. He remained in the Hospital for two days, with decreasing episodes of difficulty. No paralyses were observed. The patient was discharged at 4 p.m. on the 20th.

#### CASE HISTORY OF A GREEN MAMBA BITE IN BULAWAYO. By D.G. Broadley.

At 6.10 p.m. on 24th August 1959 D.K. Blake was bitten on the ball of the left thumb by a 7 foot Green Mamba (Dendroaspis angusticeps) from Tanganyika. The snakes on exhibition at the Bulawayo Show Snake Park were being packed in bags for the night and as Dave was tying up a bag containing two Green Mambas one of them struck through the bag and one fang entered his thumb leaving a bleeding puncture. Dave sucked the digit while I took out my first aid kit from my breast pocket. Within a minute of the bite I applied ligatures at the base of the digit and the wrist. I then took a razor blade and made two cuts an inch long and  $\frac{1}{4}$  inch deep along the ball of the thumb; having induced as much bleeding as possible I applied suction orally.

Five minutes after the bite the patient was feeling faint and complained of pain in the thumb. He was wrapped up and treated for shock, after ten minutes the first ligature was removed and another one applied at the elbow. Twenty minutes after the bite the pain had reached the lower arm, but it progressed no further and no further symptoms were observed. An hour after the bite the patient was feeling perfectly fit and a statement was given to the press.

It appears that in this case the first aid treatment was administered soon enough to contain and eliminate the venom before it advanced beyond the thumb.

#### NOTES ON THE AMPHIBIA OF SOUTHERN RHODESIA. PART 3.

By Father K. Tasman, S.J.

##### RANA ADSPERSA ADSPERSA (Tschudi)

The Bull Frog, the well known giant of its suborder, is classed with the family Ranidae, the typical frogs, in spite of its appearance. The body is large and bloated; limbs stout; head broad with a remarkably wide mouth. Numerous small teeth in the upper jaw, none in the lower jaw, but there are two hard, sharp projections where you would find canines in carnivorous animals. Dorsal surface

with a number of skin glands, forming irregular folds or ridges. First finger of male swollen and dark (Hewitt). On the hind foot is a shovel-like process (pre-hallax) used in burrowing. Colour mostly green or greyish-green above with some pale or yellowish stripes on the dorsal ridges and some pale spots laterally; below more or less bright yellow. Juveniles have more distinct dorsal stripes. Length 6-7 inches, with a width of about 5 inches. Localities: Driefontein; Kutama; Zwimba Reserve; Triashill Mission, Makoni. Widespread but irregular in distribution.

RANA DELALANDII DELALANDII (Dumeril & Bibron)

Delaland's Burrowing-Frog is much smaller than the Bull Frog, but is included with it in the subgenus Pyxicephalus. Numerous in some areas, it is seldom seen until after good rains. Body and hind limbs stout with a shovel process on the hind feet. It might at first sight be taken for a toad, not only for its shape but because of the presence of small warts on the back. Colour is variable - above brown or greyish, sometimes slightly greenish with darker spots or blotches and a rather large pale patch behind the head. This patch is often distinctly reddish-brown, but still discernable. There may be a pale median hair-line and a broken one on either side. The eye has a golden iris. Length - body a little over 2 inches; hind limb  $\frac{1}{4}$  to  $\frac{1}{2}$  inch longer. The heart-shaped tadpoles may be seen in large numbers in shallow water and temporary roadside puddles. Localities: Triashill Mission; Kutama; Driefontein; Salisbury.

RANA FUSCIGULA ANGOLENSIS Bocage

The Angola Dusky-throated Frog is one of our commonest of our water frogs. It is agile, a great jumper, excellent diver and under water swimmer. When fully grown it is large and has long hind legs. The snout is pointed; on the back are a few short skin folds. The feet are well webbed, but not as far as the tips of the toes. Adult male with a conspicuous bulbous thickening on the first finger (Hewitt). Tympanum of considerable size. Colour - usually some shade of green dorsally with dark spots and blotches, a pale middorsal streak. There may be dark marks and reticulations on the throat and underside. Length - body about 3 inches; hind limb  $4\frac{1}{2}$  to 5 inches. Likely to be found in any place where there are permanent streams and pools. Localities: Driefontein; Chilimanzi Reserve; Makumbi; Monte Cassino (where there were some particularly good specimens).

RANA OXYRHYCHUS OXYRHYCHUS A. Smith

The Sharp-snouted Frog is also a water frog, but is smaller than R.f. angolensis. It has a long pointed snout; slits on each side of the throat, through which the vocal sacs protrude when croaking. The tympanum is about the same size as the eye. On the dorsal surface there are about 8 long, continuous skin folds, those on the outside almost reaching the groin. The toes are webbed nearly to the tips. This frog is in the top class as a jumper. Colour - as I know it, greyish green above, but it has been described as dark brown and there are usually darker blotches. Dr. Rose says that "a sandy brown triangle on the snout appears characteristic" as may be a small reddish streak on each side of the head. I have also noted, sometimes, some thin pinkish stripes on the sides of the body.

Below it is white without dark markings. Length of body  $1\frac{1}{2}$  to 2 inches, the hind leg roughly twice as long. Localities: Musami; Salisbury.

RAIA MASCARENIENSIS MASCARELIENSIS Dumeril & Bibron

The Mascarene Grass-Frog will generally be found in association with the two species just described and it agrees with them in several characters. It has a similar pointed snout and slits at the side of the throat. On the back are 6-8 skin-folds, the inner and outer of which extend almost the whole length, the intermediate ones may be somewhat broken. The tympanum is narrower than the eye. The toes are webbed for some two-thirds of their length. On the hind foot one may notice a prominent hard tubercle, which indicates a burrowing habit. Colour - brown or olive with a rather broad pale stripe along the centre of the back and a thinner one along each side; rows of dark spots forming cross-bands; a thin yellow streak along the leg above and also some cross-bands; throat yellow and some yellow on the thighs. The stripes and bands of this species seem to be distinctive. Length - not far short of 2 inches, with a hind leg nearly  $3\frac{1}{4}$  inches. Localities: Driefontein; Monte Cassino.

RAIA GALAMENSIS DARLINGI (Boulenger)

The Golden-backed Frog is a grass-frog which I have only come across in one place to my knowledge. It is however known from other widely separated parts of Southern Rhodesia. It is a good quick jumper and not easy to catch. The snout is moderately pointed and the body is fairly stout anteriorly. The tympanum is not quite as large as the eye. The toes are webbed from  $\frac{1}{2}$  to  $\frac{2}{3}$  of their length. I have noted a hard tubercle on the hind foot as in R. mascareniensis. Colour - a broad pale golden band from snout to rump, with maybe a greenish tinge posteriorly. Sides black or a dark chocolate brown edged with pale yellow. Throat and belly mottled and spotted with white or yellowish and dark brown; legs also mottled and spotted. Length of largest - 2.2 inches with a hind limb of 3.7 inches. Locality: Monte Cassino, Macheke.

(To be concluded).

CASE HISTORY OF A PUFFADDER BITE IN SALISBURY. By M.R. French.

On 21st April 1959 at 4.50 p.m. while picking up a young puffadder (Bitis arietans arietans) 10" in length I received a full bite with both fangs on the top joint of my thumb. I immediately lacerated my thumb between and across the punctures and again below them on the joint. I then applied a tourniquet around my wrist and another at my elbow. At 5.00 p.m. I had a dizzy spell and fainted. 5.10 - fainted again. Two cups of black coffee made me feel better. At 5.40 I gave myself 10 cc's of anti-venene at the site of the bite and in the biceps (later found to be time-expired serum). Taken to Hospital at 6.50 and received 20 cc's of anti-venene in the buttocks. Left Hospital at 9.30 p.m. At 9.00 a.m. the following day my hand started to swell and the thumb was very painful, this lasted for two days. I received 1,000,000 units of penicillin per day for 7 days. The site of the bite became black and sloughed away, the thumb became inflamed and the skin sloughed. Three weeks later the tip of the thumb is still numb and I am unable to bend the thumb completely.

