# SNAKE KEEPER

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# INFORMATION

## A.S.R.A.

*The Association for the Study of Reptilia and Amphibia.*

*Publications*

*The Rephiberary and the ASRA Journal*

*The monthly newsletter of the Association, the Rephiberary, provides news of coming events, reports on items of topical news and contains members' correspondence as well as special articles of current significance.*

*The main aim of the ASRA journal is to record detailed observation on a scientific basis of any 'herpetological' aspect and thus help to enlighten all of us to a better understanding of the reptilia and amphibia both in the wild and as our captive charges.*

*This journal, at present produced annually, contains scientifically prepared papers and may include photographs and line drawings.*

*Activities*

*Monthly meetings*

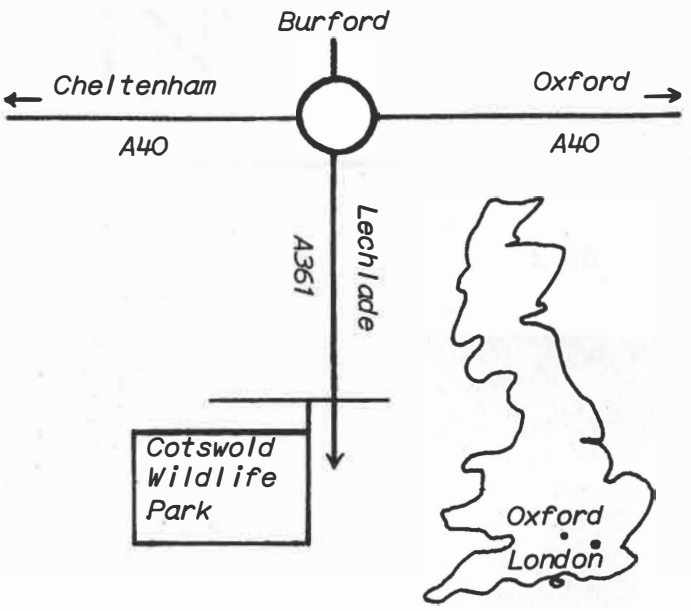
*General meetings take place at the Association's headquarters on the second Saturday of each month at 7.30pm. The headquarters are in the rooms above the Reptile House at the Cotswold Wildlife Park. The reptile house is kept open on meeting evenings and members may view the collection before the main event at 8pm which may be a lecture film, quiz, discussion or other herpetological activity.*

*Field Trips*

*Field trips and/or meetings will take place at intervals decided by the Association. It may involve visits to other herpetological establishments or fieldwork in British herpetofauna.*

*Symposia*

*Symposia will be organised by ASRA and*




*ASRA members will be encouraged to attend other herpetological events.*

*Special projects*

*Special projects will include population surveys, breeding record preparation, weight and nutrition surveys and other relevant activities.*

*Library*

*The ASRA library is housed at the Cotswold Wildlife Park and contains a general selection of reptile and amphibian books which may be borrowed by members, free of charge for one month at a time.*

*Membership rates (per annum)*

*Adult £8*
*Junior (under 16) £5*
*Family £9.50*
*Overseas £11*

*For further details contact;*

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# SNAKE KEEPER

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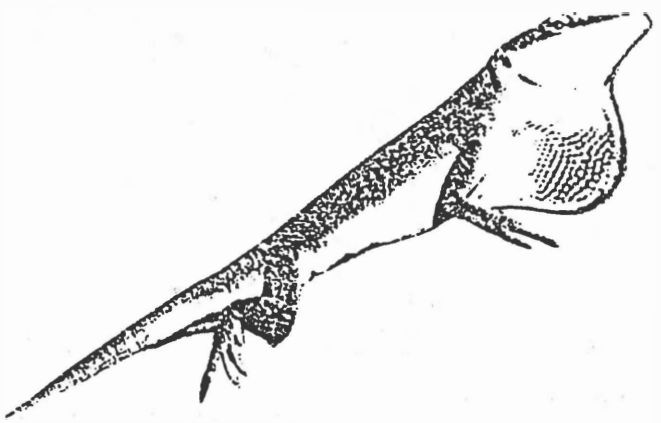
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*Front cover: Five month old Adder, Vipera berus, eating a a dead mouse. (see p.12) Photo by Paul E. Hopwood.*


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# Asian Rat Snakes of the Elaphe Genus

## Part III Elaphe schrencki

by Klaus-Dieter Schulz

*This series of articles was originally published (beginning in 1985) in the magazine 'Sauria' and is reproduced here by kind permission of the author.*

*Translation from the original German by John Hackworth.*

*The Amur Rat Snake, Elaphe schrencki (Strauch 1873), is not now as unknown to herpetologists as it used to be because it is now quite frequently kept in vivaria and is often bred in captivity. If however more information about the species is required, the literature at present available is of almost no use because it does not go into any great detail. This is rather irritating because questions about maintenance and, above all, their origins are frequently asked.*

*Elaphe schrencki occurs in two sub-species The known nominate form Elaphe schrencki schrencki and that of Elaphe schrencki anomala described by Boulenger in 1916.*

*Elaphe schrencki schrencki*

*The powerful build of the Amur Rat Snake is very reminiscent of the European Four-Lined Snake (Elaphe quatuorlineata). Their modes of life also show great similarity. The shiny black body, which is especially bright after sloughing, is covered with creamy-yellow, fork-shaped transverse bands. The colour can be very variable. Completely black specimens are frequently found but this colouring only develops in later life. The underside is yellowish with dark spots. The dorsal scales are lightly keeled. These snakes are usually fully-grown at around 160cm. Larger animals are quite rare.*

*Distribution*

*The distribution range of Elaphe schrencki extends along the rivers Argun, Amur and Ussuri to the Sea of Japan. Because they frequently occur along the banks of the Amur River these snakes have been given the common name of Amur Rat Snake. From these three rivers southwards their range is extended to Chinese Manchuria. They have also been found in the vicinity of Vladivostok (USSR), Posjet (USSR), Hegang (China), Hu-yow (China) and the Chingan Mountains. In Southern Manchuria they are replaced by the lighter sub-species 'anomala'. Elaphe s. schrencki prefers a rather moist habitat and can be found at the edges of Manchurian forests, on river banks and even in marshy areas. It does not however avoid villages where it can frequently be found in gardens searching for food.*




*Maintenance in the Vivarium*

*The vivarium in which my four specimens are housed measures 110 x 60 x 75cm. The light is switched on for 8 - 12 hours depending upon the time of year and consists of two white flourescent tubes of 18 and 30 watts. The base is only slightly warmed by the heat from the tubes. The temperature fluctuates between 24 and 28*

degrees C. At night this is reduced to 20 degrees C. The substrate is a mixture of gravel and peat. The peat has the advantage that it readily absorbs the somewhat liquid faeces of the snake thus making it easier to thoroughly clean the vivarium. The remaining furnishings are several climbing branches and a hiding place built from flat rocks as well as a large water container which is used for drinking and frequent bathing.

Most Elaphe species are predominantly active in the evening and can only rarely be seen during the day. My Amur Rat Snakes are however quite active during the day and spend hours gliding around their vivarium. In this way they bring a little 'life' to the otherwise somewhat boring vivaria of other Rat Snakes.

Elaphe schrencki soon become accustomed to their new surroundings and very rarely show any fear. Even newly-caught wild snakes rarely cause any problems. Most specimens readily accept food when it is given to them and only a few go on a self-imposed fast. These animals are however easily fed with naked mice which are also eagerly taken by all Amur Rat Snakes. Above all, small mammals such as pink mice, eggs and nestling birds seem to be the preferred food of these snakes. When the occasional and awkward hunting activity of this snake can be observed it is obvious that this snake is an avowed nest robber. To date only one female in my collection has shown any competence in its hunting activity. The other snakes and those of various other herpetologists always have to make several attempts before the agile mice are finally caught. Most times however they bite into fresh air or into the unappetising sand. It sometimes happens that the mouse escapes and the snake bites itself. Occasionally there are weeks when Amur Rat Snakes eat an enormous amount and then fast for up to two months. I always try to regulate the food intake. Each week the adult snakes get one or two fully-grown mice. The digestion process only takes around two days because of the rapid metabolism of the snakes.

After being 'tested', small eggs such as those of the quail are usually eaten with relish but not always by all snakes. Dead mice are always unhesitatingly eaten. On average around 30-40 mice are eaten in a year. The snakes slough around every two months, about 5-7 times a year.

In general these peaceful snakes rarely bite. Bites are usually only inflicted by newly-caught wild specimens or animals which have newly sloughed.

It is worth mentioning the unusual curiosity of these snakes. When new or cleaned items are placed in the vivarium they are always 'investigated' without delay and the snakes are never shy when the vivarium is opened. The snakes come immediately to the door and attempt to climb over the person servicing the vivarium. When they are extremely annoyed these snakes vibrate their tails rapidly.

Reproduction

At the beginning of November I place my snakes in the box filled with wood shavings in which they are to be hibernated. This is placed in a cellar where the temperature fluctuates between 10 and 15 degrees C. The snakes remain there until around the middle of February. Judging by my experience, this short hibernation is quite adequate and, according to other herpetologists, mating began even though the heating and lighting had only been switched off for two months. To slow down the metabolism of Amur Rat Snakes they should be hibernated at slightly lower temperatures. However at temperatures below 10 degrees C my animals showed slight symptoms of cold although there were no draughts and the humidity was not too high. After hibernation the sexes are kept separately for about a month. In my opinion this separation helps to ensure that mating takes place as soon as the sexes are placed together. The mating behaviour of the Amur Rat Snake is sometimes very violent and can last several days, indeed weeks. Even this year the oldest male exhibited unbelievable sexual activity. As soon as the females were placed with the males a wild chase ensued and it appeared that the male did not know which of the females he wished to mate with first. The male slid over the females with jerky movements. The females however, were not immediately receptive and always tried to escape. As this became 'too much' for the male he bit the female firmly on the body. This behaviour has also been observed by other herpetologists. I do not think this can be called a direct 'copulation bite' because it only occurred occasionally.

The actual copulation of my Amur Rat Snakes always lasted several hours. After

*around six to eight weeks the eggs were laid in an adhesive clump in a box which I had prepared for that purpose. The number of eggs varied between 10 and 15. Had I been present when the eggs were laid they would have been carefully separated from one another. This method has the advantage that infertile eggs which are placed in the incubation container and which later show signs of mould are unable to contaminate the other perfect eggs. It is however important that eggs do not lie too long because they can be damaged whilst they are being separated.*

*I place each clutch of eggs in a small plastic container filled with peat or a peat/sand mixture. The eggs are half-buried in this slightly moist substrate. The plastic container is then placed in an aquarium containing around 3cm of water. This aquarium in turn is placed on a warm base (e.g. a vivarium) where temperatures of 25 to 28 degrees C prevail. Finally the aquarium is covered with a sheet of glass so that an atmospheric humidity of 100% is guaranteed. At night the temperature drops to 20 to 22 degrees C.*

*The first young animals hatched after approximately 50 days and immediately went into the hiding places. Because the eggs of the Amur Rat Snake are fairly large the hatchlings are on average 25 to 30cm long and are very robust. The young animals are much more brightly marked than the adults. They are usually a grey or yellow tone. The back is marked with wide black-bordered dark brown transverse bands. With good feeding the change of colour can be achieved within 8 - 10 months. After the first slough the young animals readily take pink mice. At the age of three months the young snakes would take canary eggs in a similar way to the African Egg-eating Snake (Dasypeltis scabra).*

*When the Amur Rat Snakes were placed in the vivarium of Elaphe climacophora for a short while this resulted in an unexpected mating of the E. climacophora male and the E. schrencki female. However, no eggs were laid from which it can be assumed that the interbreeding of these geographically separated Rat Snake species is not possible (verbal communication from R. Vise, 1984).*

*Elaphe schrencki anomala*

*This species bears a certain resemblance to the hatchlings of the nominate form. The body colour varies between brown, grey, yellow and buff. The back is marked with irregular black spots each of which contains the ground colour at its centre. The eyes of both sub species are black. A black line extends from the eye to the corner of the mouth. The top of the head is uniformly brown. Size: around 170cm.*

*Distribution*

*In China this snake is found in the Tai-hunh-shan Mountains in the vicinity of Beijing and in the regions of Chengde and Chifeng, on the Yalu River (Pope 1935), eastwards to the Jiang-su and Zhejang Provinces. On the Korean Peninsula it occurs frequently north of Seoul. This snake, which, in my opinion, can no longer be called an Amur Rat Snake, is only found in dry habitats. In Korea these snakes go into hibernation in September or October and only emerge again in May. Almost nothing is known about the habits and lifestyle of Elaphe schrencki anomala in the wild.*

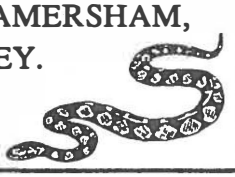
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*Asian Rat Snakes of the Elaphe Genus, Part IV, Elaphe dione, will appear in next month's issue.*


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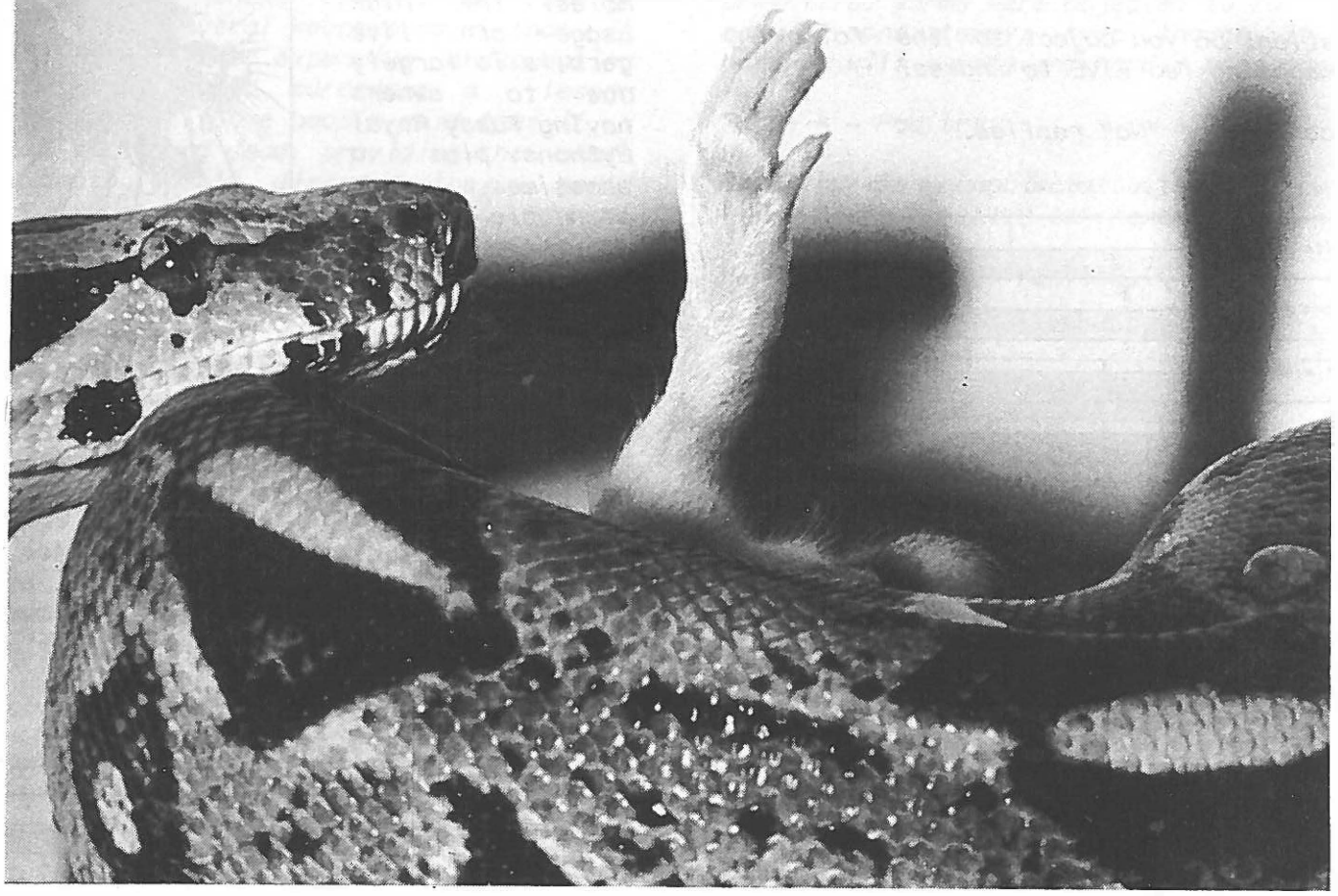
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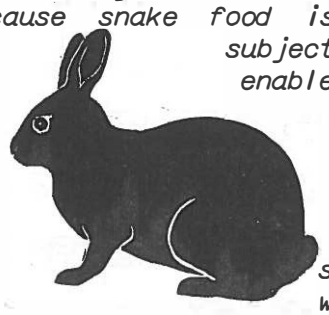
# Survey of Snake Food by Cassandra Oakes



*I carried out a survey to discover which animals people most objected to being fed live to captive snakes and also which pre-killed animals people most objected to being used as snake food. Pre-killed means carrion (i.e. dead from natural causes), an animal killed for the snake keeper by a pet shop or an animal killed by the snake keeper. I put the questions to both keepers and non-keepers as this would, to a certain extent, compare the public's knowledge with the snake keepers' experience.*



*Respondents were not asked for their names, only if they were snake keepers or non snake keepers - no records have been kept that would identify a particular reply as coming from a named person. This was because snake food is a 'difficult' subject and anonymity enabled people to be frank. Several people in both groups had, in fact, extremely strong feelings which are dealt with in the Special Comments section.*



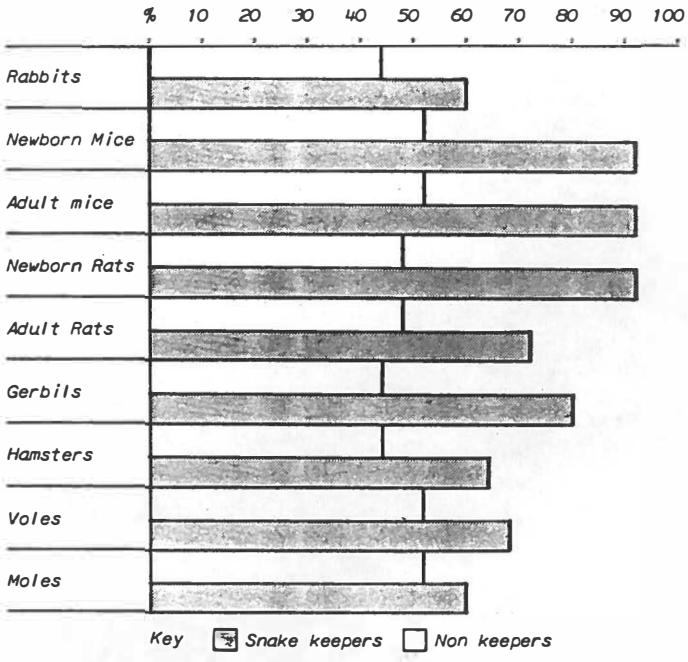
*Having established whether the respondent was a keeper or not, they were then asked to reply yes or no (maybe or don't know were not acceptable) to the question "Do you mind (or object to) food x being fed to pet snakes?" They were then taken through the list of food (shown in tables 1 to 5), firstly being asked about it being fed live and then about it fed pre-killed. A lot of information was gathered from the respondents in conversation and this often provides the*

basis for the interpretive comments.

Table 1 - Furred Animals

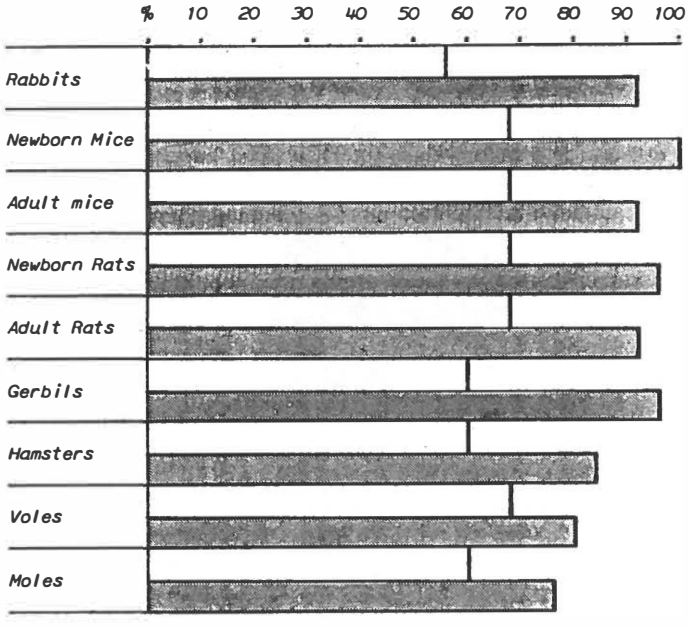
Question: Do you object to the following items being fed LIVE to snakes?

Percentage of "No" replies.

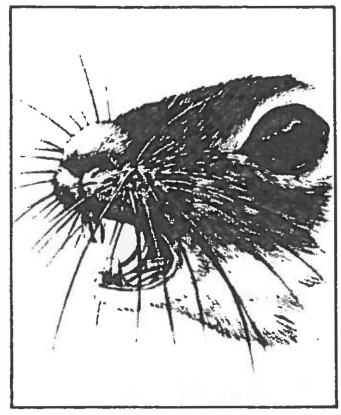



Question: Do you object to the following items being fed PRE-KILLED to snakes?

Percentage of "No" replies.




The results of this section are fairly predictable in that snake keepers and non-keepers preferred a snake to have pre-killed food but there was a higher tolerance of live rodents amongst snake keepers due to these animals being the commonest food items.

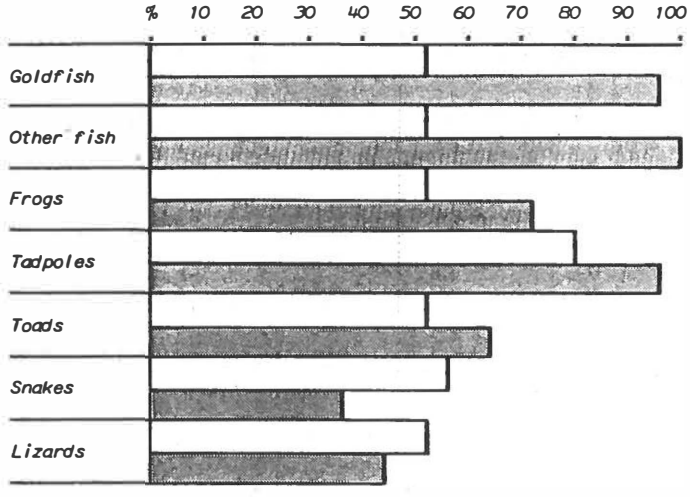


Special attention should be drawn to gerbils, voles and moles. The high usage of live gerbils is largely due to owners having fussy Royal Pythons plus a sometimes understandable hatred of these often vicious creatures. Non-keepers tended to see these and other furry rodents as pets rather than food. With voles and moles the low percentage of live usage is due to conservationist feelings i.e. a mole or vole found dead is preferable to taking a live animal out of the wild.

Table 2 - Fish, Amphibians and Reptiles

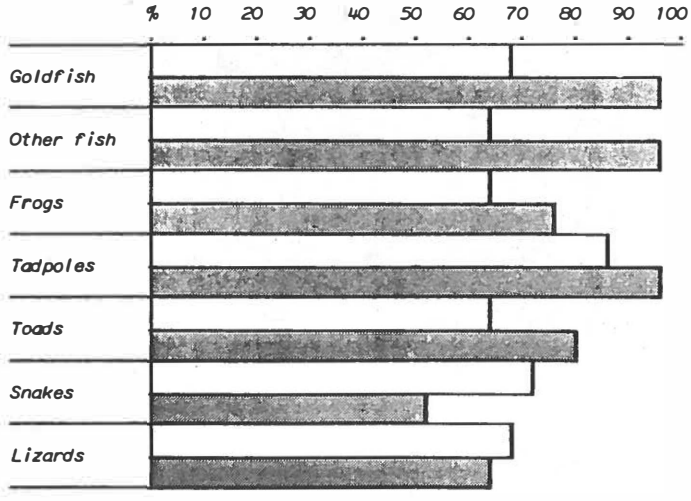
Question: Do you object to the following items being fed LIVE to snakes?

Percentage of "No" replies.




Question: Do you object to the following items being fed PRE-KILLED to snakes?

Percentage of "No" replies.



*This table shows a group of animals (including snakes) that are commonly kept by snake keepers and their responses show that the 'pet' snake doesn't necessarily come first. Several keepers said that if they had a rare or expensive snake-eating snake they would surrender a lesser species to it. Some people said that if a snake was found dead, providing the cause of death wasn't disease, they would happily use it as food.*

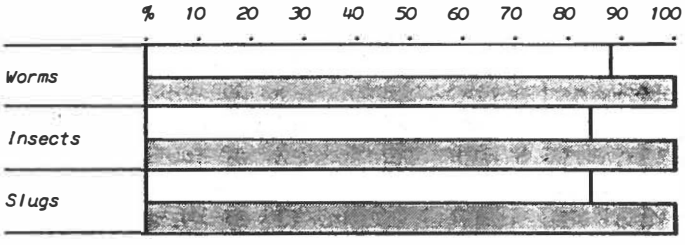
*For non-keepers, the figures at first glance appear not unlike the majority of the responses (the figures for tadpoles, worms, insects, slugs, molluscs and birds' eggs are special in several ways). At 56% and 72% for live and pre-killed respectively, the figures show a 4% greater willingness to feed snakes to snakes than any other 'normal species'. This may reflect a feeling that "the only good snake is a dead snake", even where it results in, presumably, another fatter, healthier snake.*

*People of both groups felt that wild creatures should be left in the wild and food bred specially.*

*Table 3 - Garden 'Pests'*

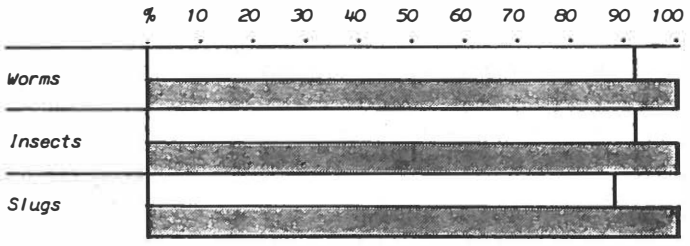
*Question: Do you object to the following items being fed LIVE to snakes?*

*Percentage of "No" replies.*




*Question: Do you object to the following items being fed PRE-KILLED to snakes?*

*Percentage of "No" replies.*

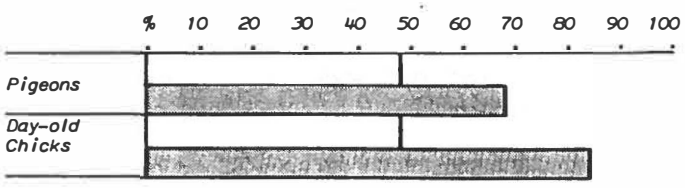



*This table is interesting, firstly for the high percentage of people willing to see these unacceptable creatures used as snake food, but also that, no matter how small or slimy or dead the food animal is, some people still object to it being fed to a snake. I felt obliged to ask whether pre-killed worms were objected to for the sake of consistency, even though it is hard to kill a worm and hardly necessary.*

*Table 4 - Poultry*

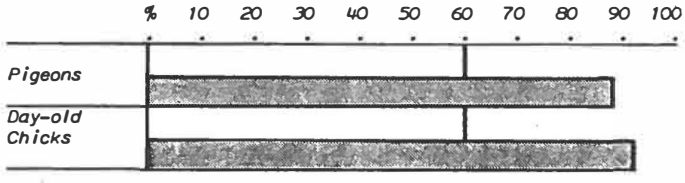
*Question: Do you object to the following items being fed LIVE to snakes?*

*Percentage of "No" replies.*




*Question: Do you object to the following items being fed PRE-KILLED to snakes?*

*Percentage of "No" replies.*

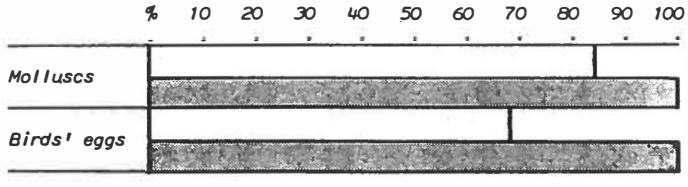



*Here the high usage of dead day-old chicks, often bought in bulk from hatcheries, is reflected in the figures. The non-keepers sometimes said that poultry was OK since they ate this type of food themselves but they preferred it to be fed dead (perhaps roasted?) rather than alive.*

*Table 5 - Others*

*Question: Do you object to the following items being fed to snakes?*

*Percentage of "No" replies.*




*The hard core of snake haters is still present in this table. The snake keepers generally said that they didn't mind an egg-eating diet as long as the eggs weren't those of a protected species; this was also largely true of the non-keepers who responded positively.*

*Special Comments*

*Non Snake Keepers*

*One person said that snakes should be allowed or encouraged to kill their own food i.e. to exercise their natural instincts. Another said that he was against ALL snake food purely because he detested snakes, especially those in captivity. Two other respondents objected to all snake food except molluscs and birds' eggs as they felt that these were 'lifeless' items. One person was adamant that any pre-killed animal should be humanely killed but was undecided as to what was humane.*

*Snake Keepers*

*Two keepers stressed an aversion to carrion because of possible contamination by parasites which captive bred snakes might not be able to deal with. One person would only use food specially killed by a pet shop. Two keepers said they didn't mind what or how a snake ate as long as it fed - the snake was put first, literally above all else.*

*Several keepers felt that live adult rats were acceptable in principle but they were wary of feeding them in practice because of the damage they can do to the snake (the same comment was made about gerbils).*

*General Comments and Conclusions*

1 *Generally everyone would prefer to feed dead food rather than live.*

2 *Both keepers and non-keepers mind less about feeding tadpoles, worms, insects, slugs and molluscs, alive or dead, to snakes than any other food.*

3 *Apart from these and the special case of snakes as snake-food, the responses of non-keepers were remarkably consistent.*

*On the feeding of live food (including snakes) their opinions swung in a 12% band around the 50% mark, from the 56% who didn't like the idea of feeding live rabbits, gerbils and hamsters to snakes to the 56% who didn't object to snakes being used as food. So 50% might be said to be the average, with objections rising or falling depending on how the species was viewed - as a pet, as in need of conservationist protection, etc. The idea of rodents as vermin (and therefore legitimate prey) was often swamped by a "poor little rat being eaten by a snake" response. When it came to pre-killed food, the split was around the two-thirds mark, with the higher proportion consistently having no objection to the item being fed to the snake. Rabbits are the least acceptable dead food , with 44% being against their use. For a species we ourselves kill, eat and often regard as a pest this seems odd. Perhaps there is a lot of anthropomorphism in our view of rabbits! On the other hand only 28% were against snakes being fed to snakes.*

4 *When it comes to the five categories mentioned in 2 above, virtually 100% of snake keepers didn't mind them being used as food (but 4% were against using tadpoles - is this due to recent conservationist campaigning about the lack of frogs?). There was a hard core of 8% of non-keepers who objected to worms and insects.*

5 *With snake keepers, the main factor is the acceptability of almost all categories of food, whether alive or dead. Apart from snakes, the only animals which scored above 50% on the "I object to feeding live" side were lizards which are often also kept by snake keepers. The next highest were the 40% against feeding live rabbits and moles. Dead rabbits were, however, 20% more acceptable (at 92%) than dead moles, perhaps because the latter are more likely to carry parasites or be diseased.*

6 *In trying to assess the scoring, one has to realise that there are a number of contrary factors to be taken into account. Rats are vermin but they are also furry mammals, therefore "cute". Some food items are the subject of conservationist campaigns. However much people dislike snakes, they may dislike the food even more - the 12% against feeding dead slugs to snakes, perhaps. Some items are potentially damaging to the 'tame' snake whether vicious adult rats and gerbils or parasite-infested dead moles so snake keepers' objections may be practical rather than principled.*

*Some of the non-keepers who took part*

*are snake haters but others have had some contact with snakes through friends and aquaintances so they may have a more informed view than other members of the non-keeping public, one or two of whom had a "why can't they eat dog food?" approach. In the absence of a direct question "do you hate snakes?" it was impossible to assess how many, or how few, of the respondents fell into this category.*

*I should like to thank everyone who took part, particularly all the snake keepers who took the time and trouble to call me about the survey.*

---

*Photograph of Boa Constrictor eating a rat by Paul E. Hopwood.*
*Gerbil illustrations from 'Care for your Gerbil'. RSPCA publication.*
*Silhouettes of rabbit and rat from 'Animal Tracks and Signs'. Collins Guide.*



*One of Snake Keeper's regular contributors, Stuart Gray, features in the March issue of BP News.*

*A former lithographer in BP's Exploration Department, Stuart, now a top watercolour artist, lives on the Isle of Wight where he divides his time between marine watercolour painting and helping with the snakes at the island's Robin Hill Zoo. The article includes a picture of Stuart with Ron Lilley, senior reptile-keeper at the zoo.*

*Stuart has appeared on TV South and Radio Solent to explain his fascination with snakes in general and Royal Pythons in particular. Snake Keeper readers will be familar with the exploits of Ken, Samantha and Taquin, Stuart's three Python regius.*

*If you would like a copy of the article try dropping a line to Sue O'Malley of BP News, The British Petroleum Company plc., Brittanic House, 26-03, Moor Lane, London EC2Y 9BU.*

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# NEW BOOK

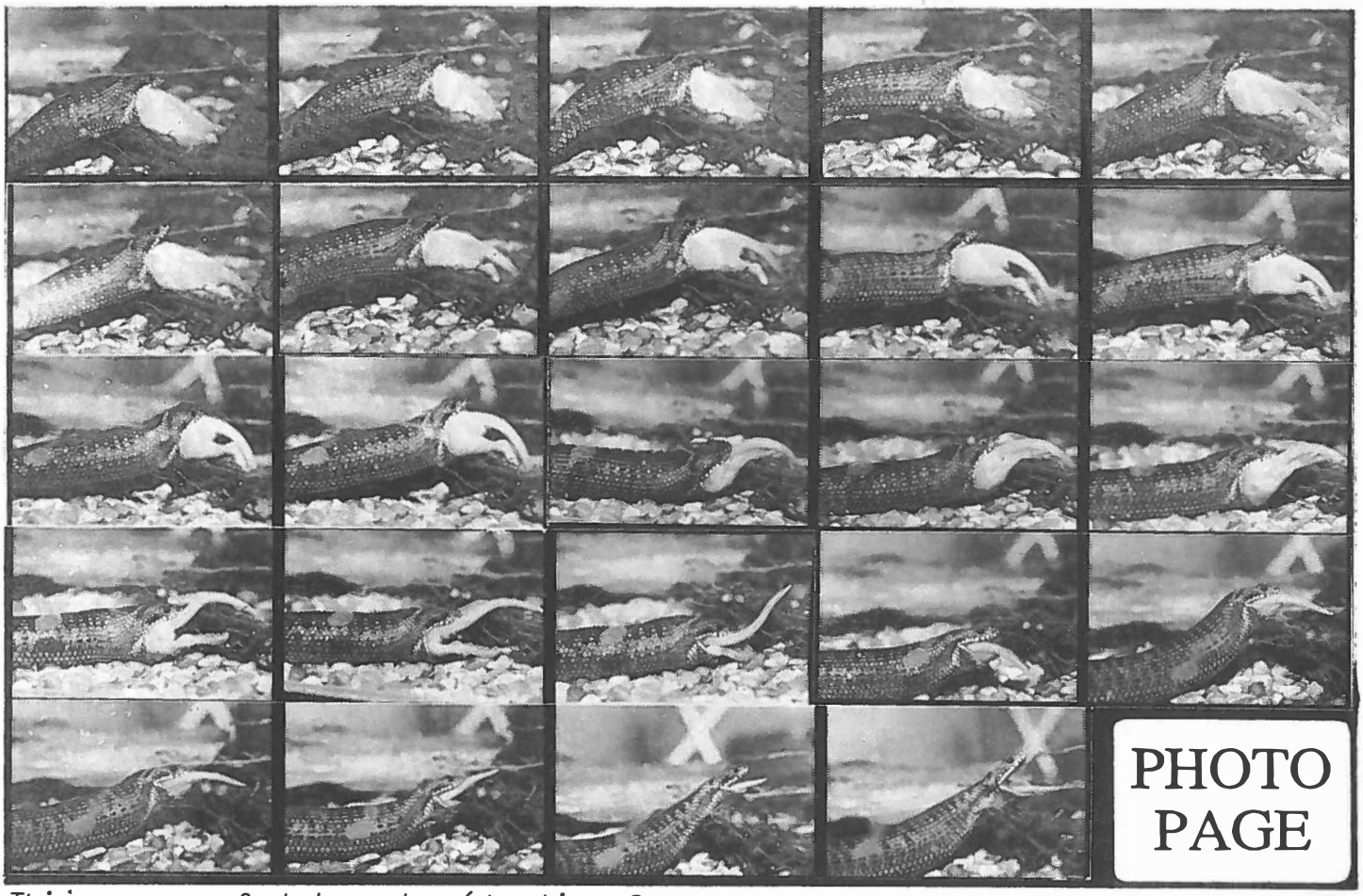
**Breeding live food for Reptiles and Tarantulas is the first book since the classic, 'Live food directory' which concentrates on the task of housing, heating and breeding insects suitable as live food for reptiles and tarantulas. Covered in detail within its pages are locusts, crickets, cockroaches, houseflies, fruitflies, phasmids and mealworms; each section giving a summary of the habitat of likely species, latin/common names, housing, heating, feeding and breeding.**

**Based on Frank Webbs extensive experience over many years in the keeping and breeding of invertebrates as a food source for his large reptile, fish and arachnid collection, we of Fitzgerald feel that you will find this a delightfully informative book, packed with technical detail but written in an easy-to-read style by fellow author and spouse Ann Webb.**

**Overall a book which will prove useful to both the Herpetologist and Arachnologist alike, whether they wish to breed live food to save money or simply to prevent expensive live food dying shortly after being purchased. Admit it, how many times have you purchased crickets to find them dead within days - those not eaten immediately, wasted. If the answer is yes - this book will pay for itself within a month.**

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**Fitzgerald Publishing**




*This sequence of photographs (duration 2 minutes 12 seconds) taken by Paul E. Hopwood shows a five month old Adder (Viper berus) eating a dead mouse.*



*Photo 1*

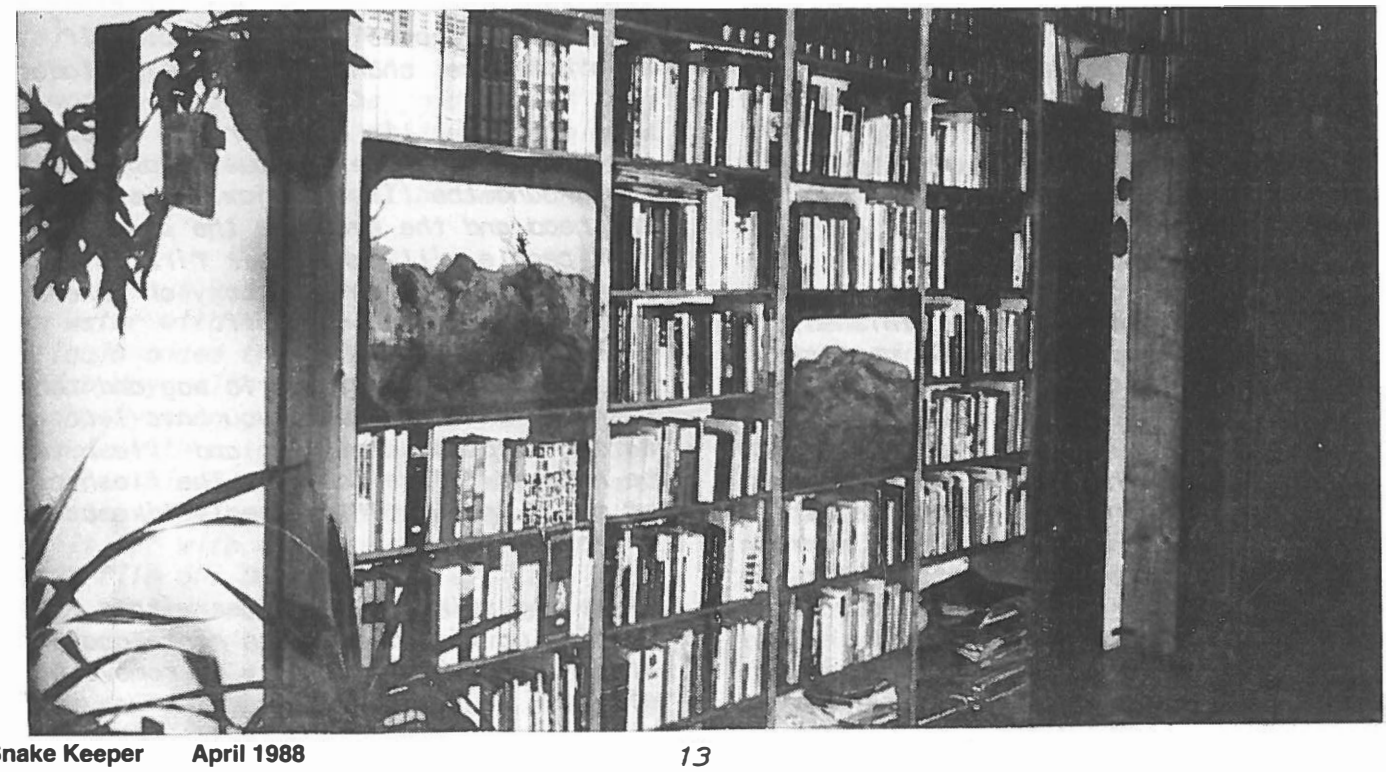


*Photographs 1,2 & 3 are from a Hungarian reader, Tamas Feher. The vivaria shown in photographs 1 & 3 were designed and constructed by Tamas for a herpetological exhibition in Leningrad, USSR.*

*Photo 1*
*(Page 12 lower half)*
*Vivarium for <u>Leiocephalus carinatus.</u>*

*Photo 2 (below)*
*Tamas's apartment showing two vivaria built into a bookshelf.*

*Photo 3 (left)*
*Vivarium for Boas. Volume approximately 10 cubic metres.*



# Removing Skin (Leather) from Dead Snakes and Home Tanning of Snake Leather

## by Fred Parkyn

I am sure most herpetologists would freak out at the thought of dissecting their long-term captive or favourite snake but what do you do when a snake dies? Flush it down the toilet, put it in a rubbish bag for the dustmen or bury it in the garden?

If you skin your snake, you will of course have to dispose of most of the body but it is not such a waste as you have (if done properly) a beautiful reminder of your favourite animal.

Of course, I would not like to encourage people to kill off their snakes prematurely or refuse them medical treatment when they are sick but, after all efforts to save a sick snake are lost, why just throw away the body?

Skinning a snake is very cheap and to preserve it forever costs only a few pounds. I list below everything you would need for skinning and tanning.

For skinning.

Scalpel, no. 10 Alternatively use
Scalpel, no. 11 a Stanley knife.
Large sheet of polythene
Kitchen towels
Plastic bag for disposing of the body
Washing up liquid

For tanning

.275 litre (1/2 pint) 40% Formaldehyde (known as Formalin)
1/2 bar white laundry soap
.275 litre (1/2 pint) olive oil
Large plastic bucket preferably with a lid
Drawing pins

Removing the snake's skin takes a long time and once started must be finished or the skin will dry and crack. Do not start unless you have the time to complete the job.

First make sure the animal is in fact dead. Place it on the polythene sheet upside down and draw a line with a marker pen from the centre of the bottom lip to the tip of the tail passing through the centre of the ventral scales.

Make an incision with your scalpel or Stanley knife (blade no. 10 if you are using a scalpel) on your line a few inches from the head. There may be quite a lot of blood in a large snake if it has just died so be ready with the kitchen towels. Work down towards the tail cutting through the outer skin until you reach the vent and then take your time doing the tail as the bones are much nearer the surface and it is easier to go off the line.

When the tail is finished return to your starting point and pull the skin away from the body a little and cut the sinews and fat away from the outer skin. Try not to get carried away as you may make holes in the skin. It is important, however, that you get as close to the outer skin as you can or else the tanning cannot be done properly. Keep slicing away at the fat etc. and work round and over the back bone until you can pass your hand between the flesh and the outer skin then continue down to the end of the tail.

On a big python the time taken to remove the skin can be anything up to 10 hours so don't start rushing if the clock seems to be ticking away faster than you would like.

Now the hard part. There is not much fat or muscle on the head of a snake so it is easier to make a mistake and cut through the skin. Take your time and cut along the line to the centre of the lip. (If you have a scalpel change to a no. 11 blade.)

When the lower lip has been cut through at the end of the line you must start cutting away round the lips and jaw. The top of the head and the eyes are the places where most people will make their first slip if they are not patient so carry on carefully until the whole skin is off.

Put the body into a plastic bag and check over the skin to see if you have left any fat on it because all fat and flesh must be removed before tanning. The flesh side of the skin should look scaly like a fish if done properly.

Rinse the skin in warm water with a little washing up liquid and then rinse again in clear water. (This is only to remove blood etc.)

Make up the formaldehyde solution using 40% formaldehyde. (Some chemists only stock 100% so this must be watered down before you start.) Each 100ml of formaldehyde 40% solution must be added to 3 litres of water and poured into a plastic bucket (I use a fermenting bin of the type used for home brewing beer). The skin is added to the solution and can be left for 12 hours. Make sure that the skin is completely submerged. Cover the bin as the fumes are very dangerous and leave it in a spare room.

After 12 hours warm the liquid to 38 degrees C (100 degrees F) and leave for a further four hours before rinsing in clear water to remove excess formaldehyde.

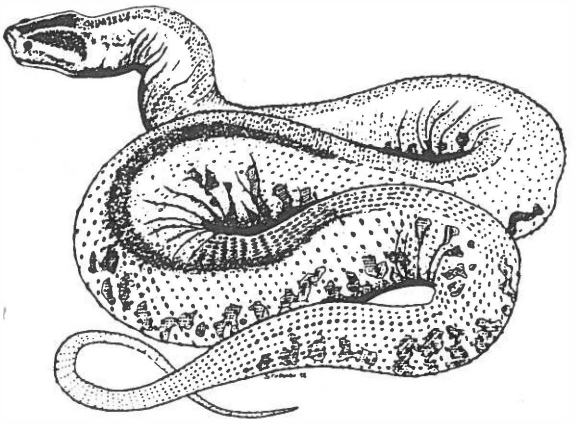
The next step is to add oils back into the skin to keep it supple. It is important that you do not give up on this proceedure too early or the skin will become dry and go like plastic. To make the oil solution pour a kettle full of hot water into a bucket (you can use the formaldehyde bucket if it has been thoroughly washed out) and grate or shred the bar of soap and add it to the water. When the soap has dissolved and the water has cooled, add the olive oil and stir, finally adding the clean skin and leaving overnight

The last stage is to pin the skin to a board so that it is stretched out and does not shrink as it dries out. Use as many pins as possible so that the skin stays in the right shape.

The oil mixture must be added to the skin on the flesh side (which must be the upper side) and must not be allowed to dry out. Every time a portion of the skin starts to dry more liquid must be added and the whole skin must remain moist and pinned out for 10 to 14 days. If the skin is allowed to dry out it will become cracked and brittle.

After 14 days you can wash the skin in warm water with a tiny quantity of washing up liquid added then rinse in clear water and dab dry with a towel or cloth. I personally then grease the flesh side of the skin with a layer of 'Dubbin' which can be obtained from saddle makers and some shoe repairers. After about a week I wipe it off with a dry towel so that a slight film of Dubbin is left but not enough to transfer to anything that the skin touches.

I have now skinned three snakes starting with a Dog tooth Cat Snake, Boiga cynodon, which measured 2.7 metres, a 3.8 metre python (Python molurus bivittatus) and finally an Elephant Trunk Snake (Acrochordus javanicus) measuring 1 metre.



Acrochordus javanicus
by Bernard Forshaw

Each time I have made a better job than before so I suggest that if one of your snakes dies and you do not wish to keep it then practise on it so that you will become proficient when your best specimen finally dies.

Correspondence to:
Fred Parkyn, 17, Milton Dene, Hemel Hempstead, Herts, HP2 7PE

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Warning! Formaldehyde is dangerous. If in doubt ask your chemist for advice.

# LETTERS

Dear Snake Keeper,

Climbing into bed recently, I reached over for my snake, a Royal Python called 'Cleo', who was sleeping on a pile of my clothes. I couldn't help noticing a pinkish tinge on the underside of her body. Studying the rest of her body I came to the conclusion that it was probably a rash caused by a new piece of carpet I had placed in her vivarium.

However, a couple of days later some scales had turned red so I sought advice. I was told that it was probably scale rot and I was recommended to use an ointment called Betadine on the affected areas. I followed these instructions but, after

three days, one third of Cleo's body was covered with the infection.

I immediately took her to the local vet who took a swab and in four days we returned for the start of a course of injections. Every third day an injection was given and after six injections the scale rot had gone. This left Cleo extremely hungry due to the fact that she had refused food during the course of injections. I placed a mouse outside her house (a shoebox) and left. When I returned, shortly afterwards, I found no trace of the mouse.

That night I decided to change Cleo's substrate. I picked her up extremely carefully and, supporting her body, I placed her carefully on my bed. Whilst removing her climbing lattice I smelt a foul, disgusting smell so I turned to the suspected culprit on my bed. Cleo's tail was arched and there was a half-digested mouse on my bed with a huge puddle of urine soaking into my duvet. At this point my dad walked in and you can probably imagine his reaction.

I am baffled as to why Cleo excreted the mouse only two hours after it was fed to her. If anyone can help, please write and let me know.

Yours faithfully,

Simon McDermott,
1 Swallow Rise, Knaphill, Woking, Surrey, GU21 2LG.

---

Dear Snake Keeper,

Having read your magazine since its origin and talked to other snake keepers, I have noticed that many Royal Pythons are fussy feeders and often take months (even years) before they accept their first meal.

Two points may be of interest to prospective Royal Python keepers;

1. If a Royal Python refuses to feed on normal mice (usually white) then try it on gerbils; these resemble far more closely the snake's natural diet of jerboa, found in Africa. If the snake refuses dead animals try it with live ones. To help wean it on to mice you can try rubbing the dead mouse with a dead gerbil. If white mice are refused, try the snake with brown or grey mice.
2. The second point concerns fasting. I have kept Royal Pythons for a number of years now and all of them, for some time, go on a fast for several months at a time. This may coincide with seasonal changes in their natural habitat. I feel that fasting is a natural process and should give no cause for alarm. It may even be necessary for successful breeding.

If your snake refuses to feed, the following additional advice might help;

a) Don't handle the snake if possible.
b) Make sure it has adequate hide boxes.
c) Make sure it has an adequate 'natural' day length.
d) If you heat the vivarium by light bulbs change to infra-red heaters so that the snake has a natural night in darkness.
e) Keep a constant temperature using a reliable thermostat.

I have found all the above points useful in some way in helping these beautiful delicate snakes to settle in.

I would advise though that if anyone considers starting to keep snakes that they don't start with a Royal Python but an easier species such as Rat Snakes or King Snakes.

Paul Hobson

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Dear Snake Keeper,

I am at present engaged in writing a book about the entire worldwide Elaphe family to eventually be published in both German and English. In this connection I would be most obliged if any of your readers would be kind enough to let me borrow slides, photographs or negatives of North and Central American as well as Asian and European Elaphe species. All photographs will, of course, be acknowledged in the book and I can be reached at the address below.

Yours sincerely,

Klaus-Dieter Schulz
Hauptstrasse 49
5110 ALSDORF
West Germany

# Breeding Report on Corn Snake + Great Plains Rat Snake Intergrades

## by Chris and Marcia Martin

Back in 1986 the female Great Plains Rat Snake, Elaphe guttata emoryi, mentioned in this report laid six eggs. The father was a Great Plains Rat Snake and three of the eggs proved to be infertile or died at an early stage of development. The other three eggs proved to be fertile. The first baby to emerge was deformed - about one-third of her belly scales were not joined together - hence within a few hours of hatching she was dragging a lot of her internal organs behind her. She was then destroyed. The second baby to emerge was almost perfect except that one of its eyes was a little smaller than the other. She was also very nervous and struck and bit freely; usually the Great Plains Rat Snake babies are very docile. The third egg never hatched. When it was opened, a deformed baby (spinal kinks) was discovered.

Marcia and I decided that the probable cause of the deformities was genetic as the parents were brother and sister. Most of the Great Plains Rat Snakes in the country come from Don Reid and Bob Riches. We had a big choice to make. We could purchase an unrelated male but we had to decide whether we were prepared to risk all of our stock. Whenever you introduce a new snake into your collection you are also bringing in a new set of bacteria etc. Even if you quarantine your new snake for three months you are still taking a small risk.

The decision we made was to cross the Great Plains Rat Snake with a male Corn Snake, Elaphe guttata, we owned. (This cross can and does happen in the wild.) As a result of this cross the female laid nine eggs on the 14th August 1987. The first egg appeared at approximately 10am and the last at about 3pm on the same day. The eggs were planted in Vermiculite and kept at 28 degrees C (83 degrees F).

The first baby emerged on the 8th October 1987. Over the next four days another six eggs hatched. Full details of our incubation technique can be found in Snake Keeper Volume 1, No. 5, page 13. Two eggs proved to be infertile.

The first slough occured on the 13th October. The young snakes look like baby Corn Snakes, however they are much bigger. Pure bred baby Corn Snakes can be difficult to feed and it is not unusual for a complete clutch to refuse to feed. Five of our seven babies fed on the 20th October on 3-5 day old pink mice. The remaining two snakes fed on the 1st of November on 1 day old pink mice.

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Chris and Marcia welcome enquiries about any aspect of snake keeping (except veterinary problems), providing an sae is enclosed. Their address is 18, Ballinode Close, Cheltenham, Gloucestershire GL50 4SQ. Telephone Cheltenham (0242) 573477.

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**Book Review**

The Life and Death of Belle Vue
by C.H. Keeling
Published by Clam Publications
13, Pound Place, Shalford, Guildford,
Surrey GU4 8HH.
75 pages Price: £5.50 post paid.

This book is a detail-packed, carefully researched and very interesting account of a zoo of which I had no personal knowledge. It has been written in a chatty, intimate style by a man who obviously knows a good deal about birds, and who ran a zoo himself for a number of years.

Belle Vue appears to have been quite a good zoo for reptiles, due mainly to the keepers, father and son James and Albert Craythorne. Among their successes were the first captive breeding of Python regius in Britain and "a Belle Vue first - a collection of sea snakes from the Far East".

I found the lack of an index to be a minor irritation. The 'alternative' binding is slightly awkward to handle and, I feel, vulnerable. There are remarkably few typographical errors in a text printed from the original typewritten pages. Some of the photographs are a little dark but they are a unique and interesting record of this now-vanished zoo.

Mr. Keeling has written and published several other books on extinct zoological gardens. Details of these and copies of this book are available only from the author/publisher at the above address.

L.C.




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*Prices include U.K. postage and packing. Overseas (airmail) please add £1 per item.*

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*'The Herptile'. Quarterly Journal of the International Herpetological Society.*

*Volume Twelve (1987) Numbers 1, 2, 3, & 4. Price £1.45p each.*

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# JUNIOR SNAKE KEEPER

## A Day in the Life of a Northwestern Garter Snake by David Ellard

*(with assistance from David's mother)*

*Life, Death and Life Again*

*David (aged 12) received his three baby Garter Snakes from Wales by post on the 29th October 1987. Awaiting them was a purpose built vivarium measuring 60cm x 45cm x 30cm purchased from Risborough Aquaria on the previous Sunday. All three snakes fed well.*

*The first slough went reasonably well but one snake retained a piece of skin on its tail. We phoned the supplier who advised us to put the snake in a damp bag. This was successful and the retained skin came off.*

*On Saturday 12th December I awoke David and we uncovered the vivarium and looked for a sloughed skin as we knew one snake was due to shed. However there was no sign of a skin. One hour later I observed snake no.3 in a state of distress: one half of his skin had come off his body but the head skin was still attached. After a discussion David thought it best to remove it with some old baby scissors. This was done and by tea time all the skin had come off except for the head area. We decided to repeat the damp bag treatment.*

*This time the snake was placed in a dampened sock. We examined the snake after 20 minutes but its condition had not changed. After dinner, David went to look at the snake and we heard him shout that the snake was dead. Upon examination the snake certainly looked dead and I placed the body on a tea towel. The piece of skin was still on the body at this time. I removed it with my fingers, leaving a little piece over one eye. We consoled David, who was extremely upset, for some time and then I cleaned and dried the vivarium which now only contained two snakes. David was still upset and my husband and I discussed what to do with the body.*

*As we talked, I picked up the snake and it moved and opened its mouth. We were completely at a loss to know what to do. First we returned it to the vivarium, then, to make it warmer still, we put it in the airing cupboard. I stroked the snake for a while in there and then put it back in the vivarium where we could keep it under observation.*

*The snake's breathing became laboured and the animal seemed to undergo convulsions. Could it have been water on the lungs? We didn't know. We did not know whether to tell David as we thought that the snake may not live. We finally decided to tell him as it was possible he may have some idea of what was happening to the snake. For the next two hours we three were curled around the vivarium studying the sick snake.*

*After seeing 'Lucky' (named for obvious reasons) moving around the vivarium and breathing reasonably well, we had supper, watched a film, checked on him again and went to bed.*

*I awoke at 7am the next morning and lay wondering how Lucky was. I did not want to look in case I disturbed David. By 7.30am I could wait no longer and uncovered the vivarium. I lifted the paper and three snakes darted away. Lucky was fine and moving normally. One eye was still covered with old skin. We then discussed how to remove that final stubborn piece without distressing the snake. Lucky solved the problem himself. He must have ducked his head in the water bowl because David noticed that the skin had come off a little while later and the offending piece was found when we changed the water later that day.*

*At the time of writing, Lucky is still with us, eating ravenously and moving around the vivarium at speed. He does not like being handled at all.*

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*CLASSIFIED ADVERTISEMENTS*
*(continued from page 20)*

*EXCHANGE*

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### WANTED

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*One hatchling/very young Indian Python. Must be feeding well. Male or female, captive bred. Telephone Susan Bowling on Macclesfield (0625) 26422.*

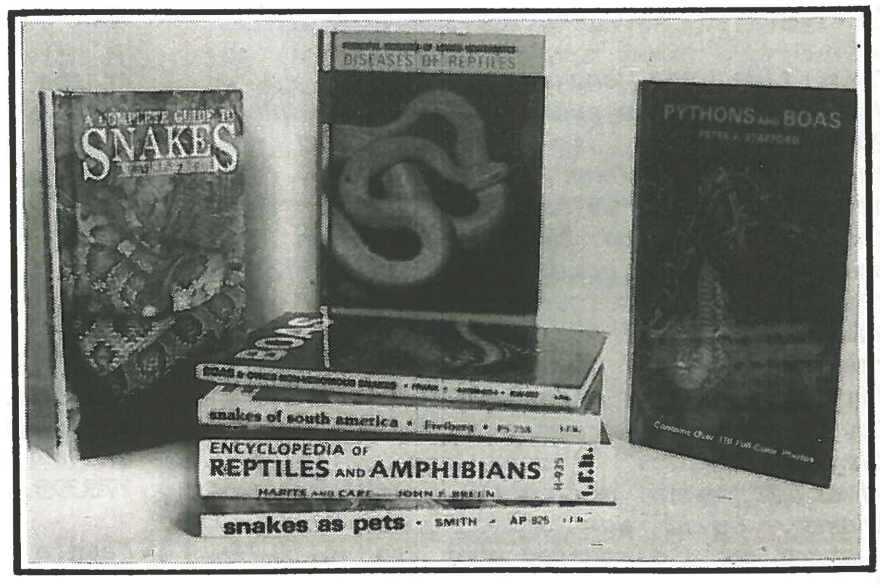
*Mexican Milk Snake, L. t. annulata, female Telephone Tony Smith, Wickham 833252 (evenings).* *(EXCHANGE - see page 19)*


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