

ISSN 0953-2021

THE HERPTILE



Journal of
The International Herpetological Society
Vol. 29 - No. 2



www.international-herp-society.co.uk

The Case Against Venomoid Snakes.

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I had been lying on my stomach, camera pressed hard to my right eye, left eye closed, focussing on the cobra in front of me. After several frames of him raising just his hood and looking briefly into the lens, I relaxed, and drawing myself backwards, I sat up to glance over my shoulder in the direction of the tapping sound.

Dave grinned broadly through the small glass window in the door, gave a thumb's up and disappeared. I wondered what he had wanted, obviously nothing more important than to disturb my concentration. I went back to photographing the Indochinese spitting cobra, *Naja siamensis*, posing reluctantly in front of me. I placed the camera to my right eye again, and closed my left, before turning back to the cobra. I did not want a demonstration of his other capability since I knew only too well what venom in the eye felt like. Not wishing to repeat the experience I was using the camera as a shield. It is hard to focus on a viewfinder wearing wrap-around eye protectors.

After a further fifteen minutes, having only achieved half a dozen frames, I gave up. Some spitters raise themselves just high enough to spit and then drop to the floor again. You often have to be quite low down and quite quick to get a photograph of them hooding. This spitter was one of those awkward specimens, although he did not spit at me. Returning the cobra to its cage, I left the self-locking Hot Room to join Dave Lester and other reptile enthusiasts in the main body of his shop for the fortnightly 'Snake Night' meeting.

Anyone who used to visit Dave Lester's Serpentarium for Snake Night will remember they were often long evenings, beginning when the shop closed to the public and ending when the pub closed and the local Indian restaurant had run out of popadoms. Reptile enthusiasts came from all over the country, so well known were these convivial evenings and such a kind and generous host was Dave. To be truthful, I often did not stay the distance, I rarely made the restaurant and now that I remember it, frequently left before the pub stage. People might have thought I had only been there a short while, emerging from the Hot Room and going home an hour or so later, but in truth I had usually been there most of the afternoon photographing some of the more interesting venomous serpents that came through the private venomous room at the back of the shop.

Only later was I to learn the reason for Dave's, clearly obvious, amusement and pleasure at the lengths I was going to photograph his spitting cobra safely. I need not have bothered keeping my distance, using the camera as a shield, closing one eye, the snake was a venomoid, it couldn't have harmed me even if I had picked it up and kissed it! Sadly Dave passed away in 1994 and his collection was broken up.

This, my first encounter with a venomoid snake, came back into my mind when I read Ray Hoser's article on DIY venomoids in the last issue of *The Herptile* (29(1):36-52. I am absolutely certain that those few members who did not know the meaning of the term are now adequately familiar with the concept. Venomoid snakes are the deactivated UZIs and AK47s of the snake world. There is a big difference, apart from the obvious one of one being flesh and the other metal, but I shall come to that later.

I do not wish the reader to think this is a case of Hoser-bashing. It is already quite clear that I and others (Wuster *et al* 2001) take issue with his dubious 'contributions' to herpetological taxonomy but that is a different issue to the one I want to address here. Hoser has been a long time supporter of *The Herptile* with husbandry articles, but the article on making your snakes venomoid is a step too far. I would be writing this response regardless of who had penned the previous article, it is just unfortunate it is Hoser and my intentions may be misconstrued as anti-Hoser rather than anti-venomoid.

I will cut to the chase. I don't like venomoids. It is not that I bear the snakes themselves any grudge, in fact quite the opposite. I will qualify my remark and say I don't like the process of creating venomoids and I don't like the idea of keeping them in captivity. There are obviously important legal and ethical questions to be asked regarding the proposal that private individuals should anesthetize and operate invasively on their own animals, regardless of how many road-kills they have practiced on first, surely the herpetological equivalent of Burke and Hare. I understand that even veterinary surgeons in the UK are not permitted to conduct such cosmetic operations so any private individual considering the process is likely to find themselves in court answering charges of cruelty that might see them banned from keeping all reptiles in the future. I will not go into this aspect of the article further, I am sure there will be much more knowledgeable legal arguments against, put forward by outraged veterinary surgeons.

I will concern myself with the idea of venomoids themselves, not directly the process of making them.

So why do people want to own venomoid snakes?

I have heard several reasons but they all boil down to the one reason in the end. A venomoid snake can't kill you.

It is quite clear that Hoser is not concerned for his personal safety, and I don't mean that negatively. He has worked with Australian elapids for many years and is presumably proficient enough at handling them by now. He could continue to keep his specimens as 'hot' individuals indefinitely but his requirement for a few venomoids in his collection is driven by his desire to present snake shows in public places to non-herpetological audiences, for education and entertainment, and avoid falling foul of the authorities (as if that has ever worried you before, Ray!)

Bear in mind, apart from blindsnakes, Australia is about 90% elapid and 9% pythonid, there being few easy to maintain colubrids like cornsnakes and kingsnakes, and presumably the shows are intended to introduce the audience to the snakes they are likely to encounter around Victoria so that rules out all but one python and really leaves only elapids, including the tigersnake, *Notechis scutatus*, and Eastern brownsnake, *Pseudonaja textilis*, for Hoser to use for his 'operations'.

Someone wants to introduce members of the public to the venomous snakes of their area, for educational or entertainment purposes. The authorities are concerned about litigation, should a snakebite occur. You can see how the subject of venomoids came up, but that does not make it right. Why free-handle in the first place, and why not use protective barriers between the handler and the audience so any loose snake can be recaptured before it causes a panic.

Even after reading Hoser's article I do not see the value or need to walk barefoot amongst venomous snakes, nor handle them without snake hooks, in order to teach people about them educationally, though from an entertainment point of view, well, there has been a long tradition of that sort of snake show in Australia (Jones 1977, Cann 1986, 2001, Beattie & Rogers 1988) and I suppose it is too late to expect them to change their techniques.

This is not the first time I have heard the idea of venomoids for displays discussed for safety reasons. An old friend was planning to set up a reptile collection overseas and hoped to attract large numbers of tourists to his establishment. Obviously he would be expected to demonstrate the venomous species to the public and although he was perfectly capable of doing so safely himself, and had no qualms about the possibility of a snakebite to himself, he was concerned about the welfare of his future staff who might be called upon to conduct some of the shows when he was unavailable. His idea, as he told me, was to have twelve cobras for the shows, eight 'hot', that he would use, and four venomoids specifically for his staff. When questioned he told me he did not plan to tell his staff that their four were venomoids so they would not 'fool around' with them. I pointed out that it would only be a matter of months before his eagle-eyed staff noticed how he personally handled the venomoids, he would not be able to keep up the pretence indefinitely and when in a hurry, someone would log their observation for later discussion. When he was away it would not take them long to work out that some, if not all, the cobras were venomoids and you know where we go from there. Bad idea!

Most people who want to keep venomoids wish to do so to avoid getting bitten in the privacy of their own homes, they have no desire to present snake shows, especially in the UK where a venomoid is, fortunately, as equal in law, from the point of view of the Dangerous Wild Animals Act (1978, 1983) as an intact venomous snake. The desire to keep venomoids, in some instances may be driven by the fear of being discovered keeping venomous snakes without a licence. The illegal keeper can swear his honoured friends to secrecy but the snake, well he does not feel honour-bound and is likely to give the game away in a most spectacular fashion. I recall one such occasion when the distraught girlfriend of the unlicensed keeper of a rhinoceros viper, *Bitis nasicornis*, called to tell me her boyfriend had been bitten ten minutes previously and was now lying on the kitchen floor!

I had to rush antivenom halfway across the country by police relay, but that is another story.

It is probably discovery that non-licensed keepers fear most, more even than death possibly, but fear of discovery is negated somewhat by removal of the fear of being bitten.

Of course, legal, DWAA licence holders also want to live long and interesting lives. A snakebite might not only shorten the odds, it might also affect their chances of having their licence renewed next year. So why not venomoids?

I firmly believe converting venomous snakes to venomoids, just so you can keep them safely, is wrong, ethically, morally, and legally. If you want to keep venomous snakes then in my belief you should keep them as nature intended, in full possession of venom glands and fangs. To do surgery on them to make them safe is to my mind, a criminal act to the snake.

Why do you want a cobra or a rattlesnake that has been 'doctored'? It is no longer the cobra or rattler it once was, its very essence as a venomous snake has been removed, it is an eunuch!

Hoser stated that snakes did not require their venom to assist them in the digestive processes,

Hoser p. 39. *"From a practical point of view, snake venom is of no discernable benefit in terms of digesting food. This is evidenced by the fact that pre-killed food is digested just as easily (and rapidly) as food killed by snake venom. In other words any breakdown of tissues of prey by venom is of insignificant benefit in terms of aiding digestion, or being essential to it. Claims to the contrary have no substantive basis."*

but was he talking purely from an Australian viewpoint with its neurotoxic, and at best pro-and anticoagulant, elapids. Do any Australian elapids possess cytotoxic, also known as proteolytic, venoms that break down tissue and appear to speed up the process of digestion. Certainly many vipers and pitvipers possess cytotoxins in their venom, puff adders being an obvious example, as so do some of the cobras, though its purpose may be less evident beyond the presence of tissue-destructive components in spitting cobra venom. I am sure Hoser was speaking purely for Australian elapids but he should have made that apparent when he made such a sweeping statement, after all, respected academics may hold a different view.

Cundall & Greene 2000 p.324. *"Distinctive functional demands imposed by prey mass and prey shape might elucidate the ecological roles of major venom types; regardless of shape, heavy prey (types II and III) presumably are subdued by immobilizing toxins, but snakes that take heavy bulky items (type III) may also profit from deeply injected digestive components. Snake venoms are complex mixtures that vary extensively among and within higher taxa, but short-fanged elapids tend to have neurotoxic venoms and long-fanged viperids usually have tissue-destructive venoms (Greene, 1997, and references therein)."*

Obviously, if you keep venomous snakes you stand a chance of being bitten and you must take all precautions to avoid it happening. That said many venomous snake keepers are bitten at some time or other. If you can't accept that possibility then don't keep venomous snakes, there are plenty of impressive, fascinating and even more challenging non venomous snakes to work with safely, though I grant you, not in elapid-heavy Australia.

You might counter that it is to prevent someone else being bitten. Who is that precisely? Family? Friends? Neighbours? Burglars, now there is a good reason to.... (only joking!)

If you keep venomous snakes nobody other than yourself and trained colleagues should be allowed near them, let alone in a position to get bitten, and premises should be escape proof.

Keeping venomoids instead of hot venomous snakes is not the answer. You can hardly say to the detective constable standing over the prone body of your elderly neighbour, as the cobra glides into the roses, "Thank God it was a venomoid, pity his ticker gave out though".

If you keep venomous snakes you must remember that YOU may get bitten, but it must never happen to anyone else. If you can't accept your person risk then get a really aggressive tree boa and pretend it is a venomoid, it will do just as good a job of making your heart flutter.

Venomous snakes may be status symbols. They shouldn't be, no reptile should be kept for that purpose, but some are, and quite often they are closet venomoids.

What I mean by that is they have been 'fixed', but the owner might not want to tell his friends. Better to let them continue thinking he has no fear.

Some prospective venomous snake keepers see venomoid snakes as a way to obtain a DWAA license, thinking since it is now safe it will be exempt. You might not believe this train of thought but I have heard it voiced. It is very short-sighted.

Now we are back to my comparison with deactivated AK47s and the way in which they differ from venomoid snakes. Keep two deactivated AK47s together and what happens? Nothing, what did you expect to happen?

Keep two venomoid rattlesnakes together and what happens? They get along so well they decide to start a family.... and produce a litter of what? Baby venomoid rattlers?

Lamarckism was a rival theory to Darwinism that gets its name from the French evolutionist Lamarck. It may also be called the theory of 'inheritance of acquired characters' and it suggests that "changes in use or disuse of an organ result in changes in size and functional capacity and that these modified characters acquired by organisms in response to environmental factors are transmitted to the offspring" (Lincoln, Boxshall & Clark 1982). Translated from the science-speak it means take two three-legged dogs and breed a litter of three-legged dogs, or take two venomoid snakes and breed a clutch of venomoid snakes.

Not likely!

Venomoid snakes produce baby venomous snakes, often at night when nobody is around and without leaving any clues about how many you have to find the next morning. Then there are all the problems of handling and feeding little venomous serpents, and preventing them from escaping, and the problems of disposing of them legally etc.

Here is the formula. $1 + 1 = X$ (when X = any number from 1 to um, oh God here's another one).

And here is another little line of thought.

Western diamondback rattlesnake, Thai cobra, abundant venomous snake species. What are they worth? Nothing, you can't give them away, juvenile or adult. Intact.

But venomoids are valuable and command big bucks, even venomoids of the more common species. Do you see where I am going yet?

How long will it be before there are new TFH titles on the shelves "Enjoy your venomoids" and "Venomoids for fun and profit"? (Not that I think a respected publisher like TFH would consider such titles of course).

I am simply suggesting that if, by a 'remarkably simple' (Hoser p.39) operation an unscrupulous person can convert a common species of venomous snake of zero value, to something that might make him a rich person, someone is going to see it as a little earner and before long we have back-street venomoid operations with all the risks. And remember, if this guy gets it wrong and does a duff job you might not be in a position to ask for your money back!

I have been hammering away at venomoids and why they should not be permitted but out of fairness I have been trying to think of a reason for the existence of venomoids.

Guess what, I've thought of one. **Hollywood!**

Gone are the days when boa constrictors and bullsnakes could stand in for venomous snakes at the movies. The audiences, especially the herpers in the audiences, spot the 'stunt snake' immediately and the whole validity of the film is lost. Think of the famous sequence in the Temple of Doom where valiant Indiana faces hundreds of snakes. I am sure every IHS member, and every cinema-going or dvd-purchasing reptile enthusiast worldwide, takes pleasure in telling their non-herper friends that the bulk of the 'snakes' are legless scheltopusiks or glass lizards, *Pseudopus apodus*, from the Balkans, with a few boas and pythons dropped in for good measure.

"Yes, but the cobra, that was real wasn't it" counters the Milhouse-like friend, who is in danger of having his/her favourite film trashed.

"Oh yes, but couldn't you see the glass between the snake and Indie" gloats the more informed Bart-like herper, enjoying the moment.

The glass has now been digitally removed, probably at great expense, so clearly Spielberg noticed it too.

I do think there could be a case for the use of professionally and humanely prepared venomoids for use in Hollywood, when expensively insured and well loved actors and actresses are to be placed in close proximity to apparently highly venomous snake species. That would mean one or two of the major animal wrangler companies in Hollywood maintaining a few venomoids, if they don't already, just for this purpose. Other than this I cannot think of any other reason but would welcome suggestions.

You see honesty is important and once or twice in my argument above I have suggested that owners of venomoids might not be totally honest, they might not tell others that the venomous snake in the cage is about as dangerous as a kingsnake. I will finish with an example.

Back in the 1990's I used to do quite a lot of work for television and film companies, advertisers, publishers and the like, providing venomous snakes for film or photo shoots.

Being based at West Midland Safari Park I was covered by our zoo licence to travel to studios and take venomous snakes with me. People do not realize that a DWAA licence does not permit such freedom of movement. I would log the specimens going out, inform our local EHO and the EHO covering the studio location. If it was in London it would also involve the City of London vets who I first met when I took a kinkajou and some pythons onto Blue Peter in the 80s, and I would also inform the police, giving them details of my vehicle, route to be taken and times of travelling. Rather elaborate but necessary precautions.

At short notice I was asked to provide an African cobra for a photo shoot in a studio on the outskirts of London in 1995. It was imperative the cobra was African, I was told, so I took my aggressive and intact Egyptian cobra, *Naja haje*. We maintain him off-show at the Safari Park because he would kill himself trying to get at the public if kept on-show. I knew he would do everything required of him, rearing up tall, spreading a hood, opening his mouth, striking with a lunge, but not of course spitting.

The shoot, which was for the antimalarial drug Larium, went well. They needed the cobra to rear up, hood, open his mouth, and look threatening. He did it first take, second take, third take, all over in twenty minutes. The advert, for medical magazines, was to be a split screen photo, the cobra on the left, a mosquito on the right, and the caption "One of these killed 14 British people in Africa last year". The reader is supposed to think it was the cobra but of course it was mosquito-born malaria. The reason why the studio had stipulated an African cobra was now obvious.

They were so pleased with the results that they immediately doubled my fee and we sat down to talk over a coffee before I headed back home to the Safari Park. The conversation went something like this.

Larium drug company rep: "Thank God we got that picture, we have to get the ad to the magazines this week to make the publication deadline."

M.O'S: "I knew my cobra would do the job, he displays well".

Photographer: "Yes, better than the last one we had in."

Larium: "And cheaper. Even though we've doubled your fee it is a fraction of what we were being charged by the other guy, danger money he said."

Photo: "And the cobra wouldn't hood properly, it never reared up as high as your cobra, I had to get right down on the deck to get anything, here I'll show you the photos we got eventually." The photographer disappears to the dark room.

Larium: "Charged us an arm and a leg, said it was danger money. It as an African spitting cobra and it had spat into his eye once."

I was puzzled why someone would use a spitter when there was no call for the snake to spit, it just created additional problems with other people present within range in a studio.

Larium: "Apparently the handler was demonstrating this spitting cobra to some children, holding its mouth open so they could see the fangs when it spat sideways into his eyes."

WHAT!!

Allowing children into close proximity to a spitter struck me as very foolish, and it was also the first time I had heard of spitters spitting sideways. Just then the photographer arrived back with some large format images of the 'African spitting cobra'.

I looked at the pictures of a cobra barely raised more than a few inches from the ground. "Just a minute" I said, "I've an album of some of my work in the car, I'll be back in a moment". Back in the studio I opened my album on a series of large cobra prints.

"See that misalignment to the neck-band of your spitting cobra, well here it is again on this print, and those spots there and there, and here and here, this is the same snake, no two are identical".

"What is more, this is a Indochinese spitting cobra, its not even from Africa, and guess what, it's venomoid".

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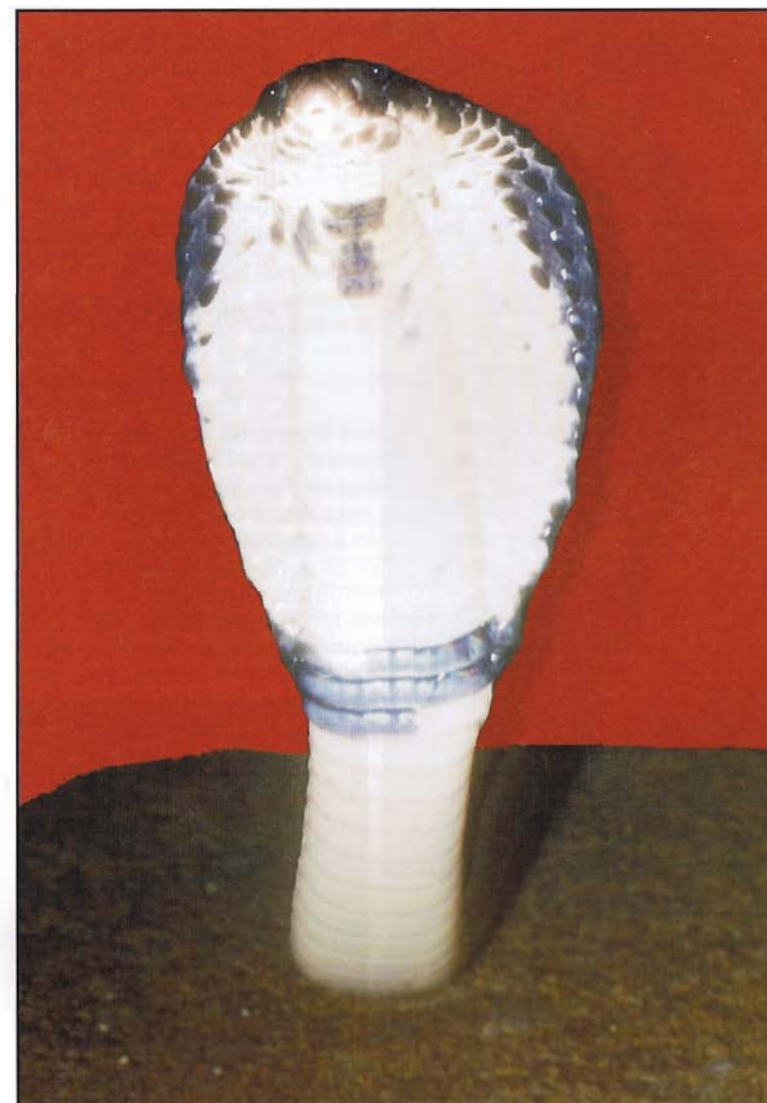
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Venomoid Siamese Cobra *Naja siamensis*, one of a pair, owned by the late Dave Lester. I was able to identify this individual snake by its markings in a photograph shown by the photographer.

Photographs by the author.



Genuine, hot Egyptian cobra, *Naja haje haje*, my own specimen, which lives off show at West Midland Safari Park, and has advertised products ranging from anti-malarials to music CDs and appeared in blue-chip natural history documentaries.

Photograph M.O'Shea.

Production still from "The Ultimate Guide to Snakes" on Discovery Channel (1997). Required, one hot Egyptian cobra, no venomoids need apply. (A snake-charmer with blue-eyes!)

