THE HANDLING OF VENOMOUS SNAKES.

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INTRODUCTION

Everybody knows that the keeping of venomous snakes involves some risks. It is essential to keep the risks to minimum. Our life is full with health- and life-threatening matters, such as traffic, electricity, gas, cleaning-materials, pets, etc., which we learn to live with, mainly thanks to education and the obligations that are made by the authorities (e.g. the driving licence). Experience unfortunately shows that venomous snakes are sometimes handled frivolously. I hope that this article will help lead to a safe keeping of venomous snakes.

VENOMOUS SNAKES AND THE DUTCH MUNICIPALITY

In the greater part of the Dutch municipalities the keeping of dangerous animals is limited by a so-called 'General Police Regulation'. It is possible to get a dispensation of this regulation, if you fulfil certain conditions. A number of municipalities have taken the directives of Getreuer (1982) and Van Woerkom & Stoel (1985). On satisfying the conditions, you usually have no

problem getting a dispensation. It is also possible that in your municipality there are no special regulations. It is best to check before you start keeping venomous snakes.

IN THE BEGINNING

We can have a very secure terrarium for venomous snakes and cupboards full with expedients and still keep venomous snakes in an unacceptable way. The inexpert handling of venomous snakes has often been the reason for a bite.
When you begin to keep venomous snakes you have to realise that sooner or later you may have to take the animal in your (bare) hand. A sick animal or one that suffers from parasites has to be treated. To shake a venomous snake out of a bag into a terrarium is not difficult, but to remove a snake from the terrarium, for example to give it medical treatment, demands a certain skill. To hold a venomous snake is not a matter of daring, but knowing what you are doing, to avoid a bite. You are a megalomaniac if you think that nothing will happen to you.
The keeping of venomous snakes begins with the buying of such an animal and justified handling begins at this point. As always of course, the aspirant buyer has learnt about the snakes he wants to buy and prepared himself for the keeping of them. But during the buying of a snake the first mistake is made. It is usual to put more than one snake in a bag or box. This is a problem with non-venomous snakes but with venomous snakes this can be dangerous.
Make sure you go prepared! Take large, preferably fierce-coloured (for example: red) snake-bags with you, a solid snake-hook and a cool-box that can be closed and has ventilation holes. Check the bags for holes before you put the snake in (this is



Fig. 1-4. Veilig een gifslang (*Bitis arietans*) oppakken / How to pick up a poisonous snake safely. Foto's: W.K. Getreuer.







often forgotten!) and secure the bag with a solid rope. Never hold a bag (with a venomous snake) under the tied rope; you would not be the first to be bitten this way.
At the sales of venomous snakes, for example society meetings, it is advisable to pack the animals in red bags labled with the name (popular and latin). Do not forget that you are responsable for the (unpleasant) consequenses of any accident with your animal. In Dutch law the owner of an animal is always guilty unless he can prove that he had done everything possible to avoid the accident. If you have not locked up the animal and you have not warned others to keep away, it is very difficult to exculpate yourself when something goes wrong.

VENOMOUS SNAKES AND INSURANCES

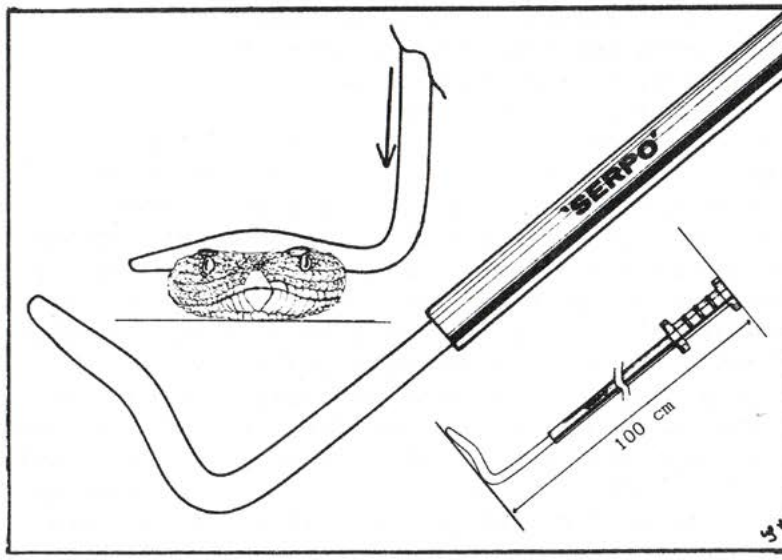
It is recommended to include in your 'Legal Resposibilitypolicy' that you keep venomous snakes. The policy premium will perhaps rise, but it is worth it. Sometimes the insurance company will make demands on how you keep your snakes and how many you can keep. The higher your demands are, the higher the contribution will be. Apart from this, it is always advisable to insure yourself if you keep animals, dangerous or not, as in the last few years many snakes have been stolen.

HANDLING OF VENOMOUS SNAKES

To minimize the risk of getting bitten, we should handle the snakes as little as possible. Avoid taking a venomous snake behind its head, as any snake grasped behind its head will vigorously try to defend itself. When we have to handle the snakes, to clean the terrarium or to move them to another terrarium, we should work as follows:

- Rattlesnakes and vipers, as a rule, suffer from fear of heights. You can make use of this by lifting them fast off the ground (about 50 cm) by putting a snake hook under the middle part of its body. For heavy snakes you may have to use two hooks.

Cobras, mambas, etc. should not be handled this way, as they have no fear of heights. They drop off the hook or crawl on it. It is better to lay a tube in the terrarium that is closed on one end. Wait until the snake has crawled into it and then you close it with a stopper, using a long pair of tongs. Think of the ventilation! Cobras can also be transported on a stick, provided that you hinder it in its freedom of movement. Cobras hard-



The ideal snake hook is shaped in such a way as to prevent the snake's head from slipping underneath.

Registered design, SERPO 1981.

ly react on touch, but do so visually. If you put the snake hook under its body (at the anterior third of its body) and grasp the tail with your other hand, you can transfer it. Make sure that the snake hook is solid and long enough to keep your hand and body out of reach of the snake's mouth.

Thanks to the good-natured character of most venomous snakes only a few people are bitten while grasping behind the head of the snake, where it has enough opportunity.
Venomous snakes are often grasped in different and wrong ways. Very misleading pictures in some books are often used as examples of how to hold them. These pictures often show the teeth of the snake. One forgets that mostly dead snakes are used in these pictures. If you hold a living snake that way, it is almost certain that you will get bitten. In 'Snakes and snakebite' (Visser & Chapman, 1978) on page 6, is a picture of someone showing the fangs of a *Bitis*. With the forefinger the lower jaw is pushed down and with a pair of tweezers a fang is pulled foreward. If you do this with a living specimen, you will surely get bitten. In the same book, on page 50, is a photo of someone who holds a *Naja nivea*. With the thumb on top of the head and with the hand around the neck. This way of holding can be done with a cobra (proteroglyph), but with solenoglyph snakes (vipers, rattlesnakes) it can give problems. Through the movableness of the jaws and the hinge of the fangs a solenoglyph snake is able to move its fangs out of its mouth, or even right across its lower jaw into the hand of the person holding it. A snake keeper in The Netherlands has experienced this with a *Vipera ammodytes*. The effects of the bite were happily not serious.

If it is necessary to grasp a venomous snake behind the head, then you should grasp it fast and

resolutely, after you pushed its head against the ground with a stick or hook. Choose for this a solid, flat subsoil. Do not push too hard; many snakes have had to pay for this with badly contused vertebrae or even a broken neck. After the head is immobilised properly, we put the forefinger on top of the head, close behind the eyes. With the thumb and the middlefinger we grasp the neck, close behind the jaws. With the ringfinger and the littlefinger we support the neck of the snake. With your free hand you grasp the middle of the snake's body (see Fig. 1-4).
It is very important to place the fingers behind the head in one movement. Make sure that the grasp stays firm during the treatment of the snake. You could be seized with cramp or insensibility. An assistant could close the cloaca to prevent a beastly mess. Never lift a snake up solely by its head. To disturb the snake as little as possible it is important to catch the snake as fast as possible. The faster you act, the less chance the snake has time to defend itself.
If there is more than one specimen in the terrarium, you should first take the one you want to treat out of the terrarium with a hook. Put it on the ground and then grasp it the right way. Do not forget to close the terrarium.
The best way to catch a mamba (*Dendroaspis sp.*) is with a tube with a snake bag on one end. After the snake has crawled into the tube and you have closed it, you can take it out of the terrarium. Now shake the snake into the bag and close it with a rope. If you place the snake bag against a piece of glass with a lamp behind it, you can locate the head of the snake and grasp it through the bag.
When you put the snake back into the terrarium, you have to let the greatest part of the body rest on the terrarium subsoil. When you let it go, throw the head (not too hard) away from you. At the same time pull your hand out of the terrarium

and you should not get bitten.

HEAD COUNTING

Make it a habit to note where all the snakes are, before opening the terrarium. Two examples (from The Netherlands) will make it clear why:

- A snake keeper was bitten in his shoulder by a *Trimeresurus sp.* The snake laid on a small edge above the sash windows. When the person bent over into the terrarium, the snake bit him. Other than the pain the bite was not harmful.

- A snake keeper read in Thiemes Terrarium Guide that rattlesnakes dislike moisture. He made the wrong conclusion that his *Crotalus viridis* would not shelter at a damp spot in the terrarium. When he dug out a plant from the damp spot, he got bitten by the snake that was hidden there. Thanks to the adequate help at the Dijkzicht Hospital in Rotterdam it had to a happy ending, in spite of the seriousness of the bite.

GLOVES

A lot of people unjustly have confidence in gloves. Even thick, leather gloves do not give protection against a bite of solenoglyph snakes (vipers, rattlesnakes, etc.). The speed and power with which these snakes bite is fantastic. In Belgium the owner of a public reptile collection was bitten by an *Eristicophis macmahonii*, right through the glove he wore. After the administration of *Echis*-serum there were no serious ill effects, other than the joints of the bitten hand remained stiff. In short, do not trust gloves.

PRACTICE MAKES PERFECT

Before you start handling venomous snakes, it is advisable to practice with non-venomous snakes, aggressive snakes, like Cooks boas, are perfect for this. Work seriously. It often happens that during the practice people get a painful bite but with a venomous snake this would be a different story. Remember when you are handling venomous snakes many people are under tension which increases the chance of making mistakes. Organise yourself and take your time. Never work alone as it is not possible to hold and treat a venomous snake at the same time. The person holding the head has to make sure that the snake can not bite anyone. Someone was bitten in his thumb by a *Naja naja kaouthia*, in spite of the fact that he held the snake correctly with the other hand.

CONCLUSION

Experience shows that many bites could have been prevented. Carelessness is often the reason for an accident. It should be obvious that a keeper of venomous snakes has to be concious of his responsibility and behave accordingly.

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