

ELAPHE TAENIURA (COPE, 1861), A REMARKABLE SNAKE
FROM ASIA.

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INTRODUCTION

Despite the fact that this large and attractive snake is often imported from Bangkok and Hong Kong, reports of its keeping and breeding are rare. Nevertheless these snakes are well-suited to life in a terrarium; when they are healthy, they present no problems. The reason this species is seldom seen in terrariums, is that most snakes imported from Asia are weak and ill. According to my information dr. R. Fesser (Austria) was the first person to import this species from Taiwan and also the first to breed it. As a result of his breeding healthy young of *Elaphe taeniura friesei* were available. Between the beginning of this century and the thirties *Elaphe taeniura* was often listed by herpetologists, the literature regarding this species becoming very voluminous, but also badly arranged. Many scientists finding a snake with small variations in the scale pattern described a new subspecies. Now is the time to present a review of this species.

SYSTEMATICS

I have spent many hours trying to throw some light on the *Elaphe taeniura*-complex, the result being



Foto 1. *Elaphe taeniura taeniura*. Foto: Klaus Dieter Schulz.

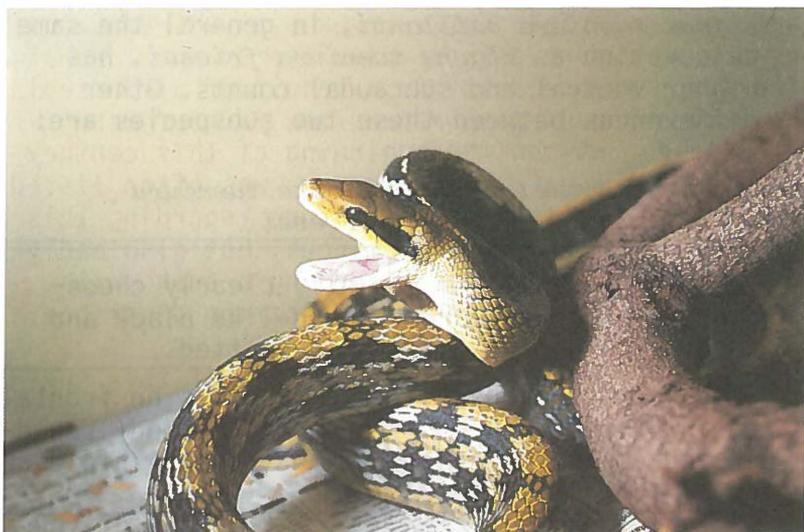


Foto 2. *Elaphe taeniura vaillanti*. Foto: Klaus Dieter Schulz.

that six subspecies appear valid.

1. *Elaphe taeniura taeniura* (Cope, 1861).
This subspecies is found in east Himalaya, Assam, Upper Burma, northern Thailand, Laos, Vietnam and China. According to Mell (1929) the subspecies "*Vaillantii*" appears in south China. Even more unsure is the distribution of *Elaphe taeniura yunnanensis* (Anderson, 1917) with only a few scale pattern variations the reason for describing it as a new subspecies. This is the reason I do not list it as a valid subspecies. *Elaphe taeniura taeniura* is the smallest subspecies with a length of about 150 cm (seldom 180 cm). It inhabits the lowlands and mountainous regions up to 1500 m.

2. *Elaphe taeniura vaillantii* (Mocquard, 1905).
Reptiles that live on islands are not only often different in colour, but also in scale pattern, size, etc. Herefor I think that this subspecies is valid.

Elaphe taeniura vaillantii, in general the same colouration as *Elaphe taeniura friesei*, has higher ventral and subcaudal counts. Other differences between these two subspecies are:

<i>Elaphe taeniura vaillantii</i>	<i>Elaphe taeniura friesei</i>
Belly yellow, with glossy silver appearance.	Belly clearly chess-board-like black and grey spotted.
Dorsal spots elongated and forming an H-shaped design.	Dorsal spots on frontal part of the body rounded and fading into each other.

The dorsal spots start at three head lengths from the neck.	The dorsal spots start at one to one and a half lengths from the neck.
length up to 190 cm.	Length over 200 cm.

Remarkable was the aggression of this subspecies. When provoked an animal flattens the fore part of the body vertically in an S-shaped form, opens the mouth, vibrates the tail and hisses very loudly.

Distribution: southern China: Guandong, Guanxi, Fujian and the island of Hainan.

3. *Elaphe taeniura friesei* (Werner, 1926).

This subspecies, found on Taiwan (Formosa), is the most beautiful, and the largest. Compared with *Elaphe taeniura taeniura* it shows clear differences in pattern and colour of the upper body. Also the venter is clearly covered with large, black spots, which are hardly visible in *Elaphe taeniura taeniura*. With a length of more than 250 cm, it is the largest of all *Elaphe*.

There are also some remarkable anatomic differences, for example the longer tail. This is intensively used during climbing. In the terrarium this subspecies often climbs while *Elaphe taeniura taeniura* is an opportunity climber.

4. *Elaphe taeniura schmackeri* (Boettger, 1895).

This subspecies is only known from the Japanese Riukiu-islands (Miyakojima, Isigakijima and Iriomotejima) and is the largest colubrid snake of Japan (180-200 cm).

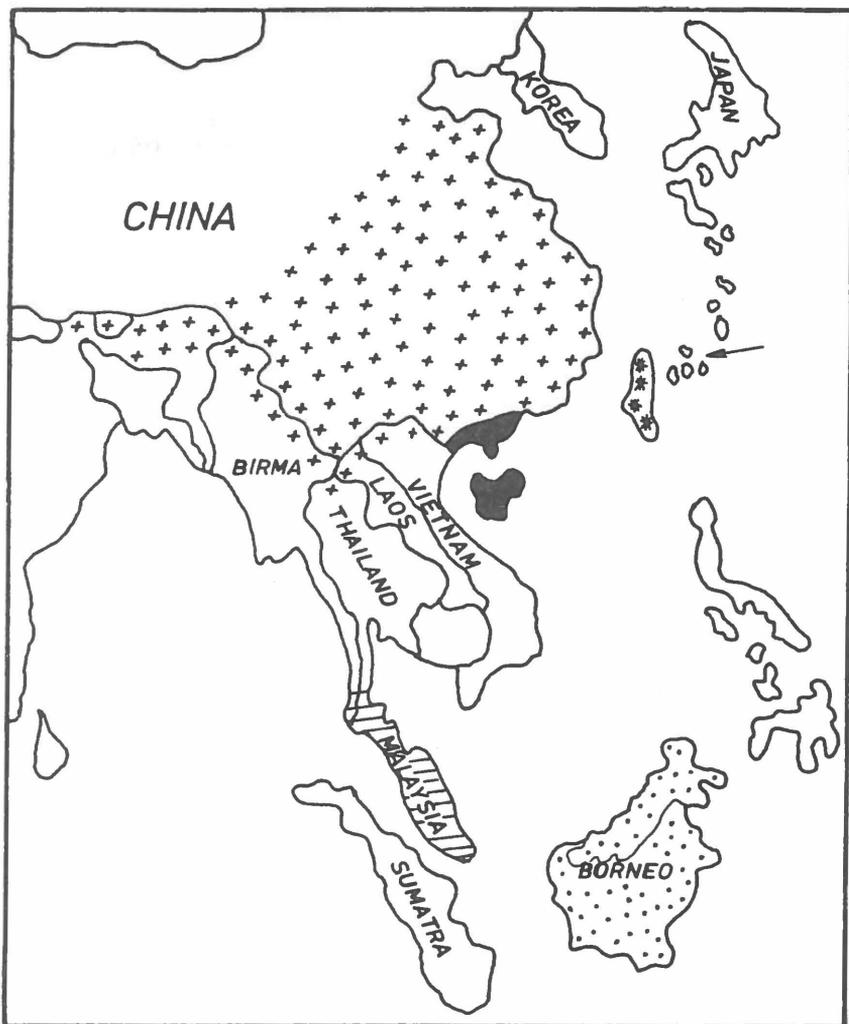
This subspecies looks like *Elaphe taeniura taeniura*, but is much darker in colour with a less distinct pattern. It is also of more slender built and has a flatter head with a longer snout.

5. *Elaphe taeniura ridleyi* (Buttler, 1899).
This so-called "Black tailed racer" lives in south Thailand and on the Malayan peninsula. *Elaphe taeniura pallidus* (Rendahl, 1937) from Sukli "Tenasserim" (lower Burma) is almost certainly *Elaphe taeniura ridleyi*. This subspecies reaches a length of more than 200 cm (210 cm - Schulz, 1986), and should, according to the literature, live only in caves and eat only bats, but direct proof does not exist. In my terrarium this subspecies fed greedy on white mice and other keepers mention sparrows.

6. *Elaphe taeniura grabowskyi* (Fischer, 1885).
This large subspecies only lives on Borneo. It looks a lot like *Elaphe taeniura ridleyi*, but is darker coloured, and has the same characteristic striped tail. It can attain a length of about 200 cm, but is often smaller. Manthey (1981) found this snake at Mount Kinabalu (Sabah) on a road. Little is known about the natural history of this subspecies. In all probability it will be as easy to keep in a terrarium as the other subspecies and will feed on mice.

KEEPING AND BREEDING *ELAPHE TAENIURA TAENIURA*

In 1983 I obtained a female *Elaphe taeniura taeniura*. It came from a pregnant imported female that was to come from Sjanghai (China). After a long search I found two male specimens of the same subspecies owned by A.B. van Woerkom. They almost certainly came from the same mother-snake. We agreed to place the three snakes in one of my terraria measuring 120x70x180 cm (lxwxh). The illumination consists of two fluorescent lamps (white), which were only used together during



Map. 1. Distribution of *Elaphe taeniura*.



E. t. taeniura



E. t. schmackeri



E. t. vaillanti



E. t. ridleyi



E. t. friesei



E. t. grabowski

springtime. During the greatest part of the year only one lamp is used. The bottom is heated in one place with the choke-coil of the TL-lamps.

The temperature during the day is usually between 25-28°C and 20-22°C at night. The terrarium is fitted with a large waterbasin, a climbing-branch and a piece of corkbark. On the bottom lays a mixture of gravel and peat.

Elaphe taeniura taeniura is a shy snake that seeks shelter when it is disturbed (I imagine that this species is difficult to catch in the wild). The snakes are mainly active in the evening, but also during the day when it is quiet in the room. Most of the time they lay under the corkbark. A remarkable part of their behaviour is the horizontal, to and fro moving of the head. I also observed this behaviour in *Elaphe taeniura friesei*, *Elaphe oxycephala* and *Chrysopelea ornata ornatissima*.

Elaphe taeniura taeniura moves her tongue, just like *Elaphe oxycephala*, vertical when it is very excited. The blue tongue is moved up and down above the nose. I have also observed many other similarities between *Elaphe taeniura* and *Elaphe oxycephala*, such I do not see any reason to put *Elaphe oxycephala* in a separate genus (*Gonyosoma*). When *Elaphe taeniura taeniura* is irritated, it puts the first part of the body in a S-form and opens its mouth threateningly before biting. Also worth mentioning is the peculiar posture of the snakes. Either she lays rolled up or stretched out, the spinal column is almost always pulled together in a wave-form. I have observed this only in *Elaphe taeniura taeniura* and *Elaphe radiata*.

Elaphe taeniura taeniura is, as mentioned earlier, an opportunity climber and spends most of the time on the floor of the terrarium.

Adult laboratory-mice are offered as food. The snakes grasp them with great power and speed, after which they strangle it with several body-



Foto 3. *Elaphe taeniura friesei*. Foto: Klaus-Dieter Schulz.



Foto 4. *Elaphe taeniura grabowski*. Foto: U. Manthey.

coils. As these snakes are very voracious, one has to watch out that more than one snake does not grasp the same mouse. The snakes are fed every tenth day with two mice per snake.

The three snakes were put together in December 1984 and after two weeks they started to show copulation-behaviour which did not lead to real copulations. After a winter-rest of two months at a temperature of 15°C, the copulation-behaviour was repeated in March 1985. Usually after the lights were switched off the males started to chase the female. She always tried to escape from their advances and struck violently with her tail. This lasted for almost two weeks and generally took place during the night. It was not until 15 March 1985 that I saw the biggest male copulate with the female. The copulation lasted several hours, with the animals laying quietly under the corkbark.

Five white, long-shaped eggs were laid on 7 May 1985, between 18.00 and 22.00 hours, in a small tray, filled with moist peat. The eggs were adhered to each other. They measured between 7.2x3.0 cm and 6.5x2.5 cm (lwx). I dislodged the eggs from each other and laid each separately in a tray with peat. This tray was put in a simple incubator with day temperatures between 25 and 28°C and a night temperature of around 22°C. The air humidity was almost constant 95%. After four weeks one egg appeared mouldy. I stopped the mouldiness by covering the egg with active carbon. On 16 July 1985 the first young hatched. The others hatched on 19 and 20 July 1985. The incubation time was 70-75 days. This incubation time is the same, under the same circumstances, for *Elaphe taeniura friesei*. All the young were healthy and even the one from the mouldy egg had no defects. They had an average length of 40 cm, had the same colours as the adults and were also as shy. After the first



Foto 5. *Elaphe taeniura schmackeri*. Foto: Max Mori.

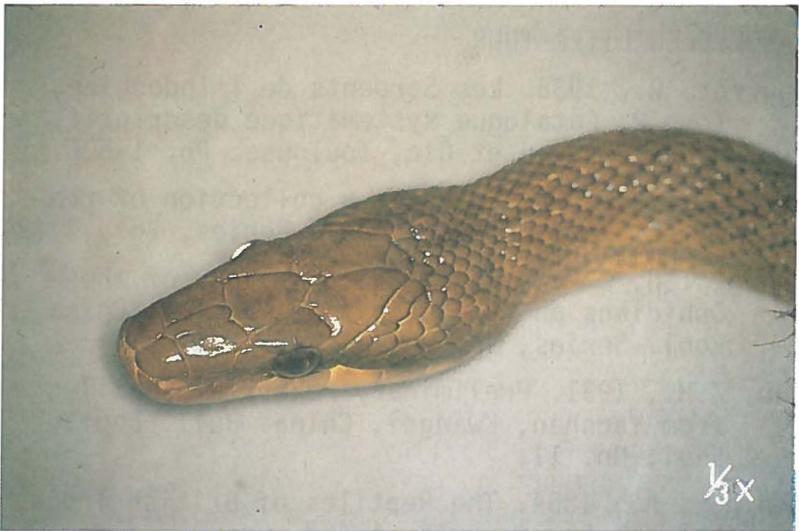


Foto 6. *Elaphe taeniura schmackeri*. Foto: Max Mori.

sloughing they ate pink mice on their own accord and grew very fast. When they are fed well, they can reach a length of more than 80 cm after one year.

On 8 February 1986, three weeks after the winter-rest, I observed other copulations while the female was in a sloughing period.

Four eggs, of the same size as before were laid on 24 April 1986, the same way as before. After an incubation period of 68 days the first youngster left its egg on 30 June 1986. The other young followed the next day. When I took the young out of the incubator, I saw to my surprise not four but five young. Two much smaller specimens were my first breeding of twins.

In conclusion *Elaphe taeniura taeniura* is a snake with few problems that can be readily bred presuming you start with healthy specimens.

I hope that in the near future other Asian *Elaphe* will be kept and bred successfully, so that they are not only available in alcohol in museums.

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Foto 7. *Elaphe taeniura ridleyi*. Foto: Klaus Dieter Schulz.

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