

## SNAKE DAY 1994

The Snake Day of 1994 held on Saturday October 15 has again been a great success. Fortunately this year we had a lot more room to our disposal so the overwhelming crowd was spread out a little. Apart from an large offer of different snakes there were stands where all kinds of supplies, books and even feeding animals could be bought. In addition, there were three interesting lectures of which an abstract is printed below.

Not only the extra amount of space or the large supply have contributed to the success but also the enormous dedication of the many volunteers who together made sure everything went smoothly. Edith den Ouden and her team who provided everybody with food and drinks, the Veterinary Sciences students of the student society Archaeopteryx for their help, all those who help supervising the event. Without wanting to forget anyone, the Society board wants to thank everybody who helped in any way to make the Snake day the success it was.

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### ABSTRACTS OF LECTURES AT THE SNAKE DAY 1994

#### ■ Coral snakes of Costa Rica by Twan Leenders.

English translation by Cécile van der Vlugt, English corrections by John Weir.

During a six month investigation a large amount of information was collected on the sympatric herpetological fauna of the Costa Rican tropical rainforest. The herpetological fauna of the Neotropics contains many more species than would be found in Europe. For example, 44 species are known in the area of investigation which is about 10 Km<sup>2</sup>. Although the number of species can be very high in a certain area, the density is usually rather low. All the different species occupy their own niche in this complicated tropical rainforest ecosystem. Each species strives for survival and tries to avoid competition with other species. In this way, different specialisms have developed with regard to food preference, way of living, habitat, activity, etc. Some examples of these specialisms are described below.

In the area of investigation three species of venomous coral snakes occur together with a number of imitators which are non-venomous or ophistoglyphic. All these snakes have generally a similar pattern of black and bright coloured bands (e.g. red, orange, yellow). By resembling a dangerous snake, a harmless snake might benefit from its deterrent looks.

The way a snake finds its prey can be active or passive. Passive 'hunters' include pitvipers (*Bothrops asper*, *Bothriechis schlegelii*, *Lachesis muta*) and the *Boa constrictor*. These snakes often lie still for days waiting for prey to pass by. Most snakes, however, hunt actively, using their acute eyesight (e.g. *Leptophis*, *Drymobius*, *Dendrophidion*) or their excellent chemoreception (e.g. *Geophis*, *Tantilla*) or a combination of both (e.g. *Spilotes pullates*, *Pseustes poecilonotus*).

The type of prey hunted for also differs for each species. Several tropical snake species specialise in eating a distinct type of food. Some species only eat frogs or frog-

spawn (*Leptodeira*, *Liophis*), lizards (*Oxybelis*) and even other snakes (coral snakes; *Micrurus*). A relatively large number of snakes occurring in this area eat insects and snails.

Besides food preference, there is usually also a preference for a certain (micro) habitat. In the tropical rainforest snakes live on the ground, in the leaf litter, in decayed tree trunks, in shrubs, in the vicinity of rivers, etc., they are even found in the top layers of trees at heights of about 60 metres.

Because every snake species has a unique combination of specialisations, it occupies its own place in the ecosystem. Since most snakes occur in low densities, the capture of a relatively small number of animals of one species in the same area, can severely disturb the biological balance of this ecosystem.

#### ■ **Colour variation among rattlesnakes** by John Tashjian.

The colour variation amongst rattlesnakes of the genus *Crotalus* was described and numerous slides of the different (sub)species and colour variants were shown.

The longest species known is *Crotalus adamanteus* which reaches a length of 2.5 metres, whilst the smallest rattlesnake, *Crotalus ariscrriatus armstrongi*, reaches only 475 mm. Colour variation within the subspecies *Crotalus viridis viridis* ranges from dark brown or greyish black, to light brown, a patternless specimen was also shown. The absence of a pattern can occur in many different species. The most variable colour pattern is known in the subspecies *Crotalus mitchelli pyrrhus*. It is suggested that the colours might differ amongst specimens, because the snakes are found on different coloured rocks. It is remarkable that a light coloured specimen of one subspecies is sometimes more similar to a dark coloured specimen of another subspecies, than to the colour variants within its own subspecies.

The pygmy rattlesnake, *Sistrurus miliarius miliarius*, is well known as a pink coloured snake, however, a western subspecies was shown which was grey with dark brown markings.

*Crotalus mitchelli mitchelli* can range in colour from being slightly yellow to blueish grey. More characteristic is the small head and large rattle, in proportion to the other (sub)species.

*Crotalus lepidus klauberi*, originally known as the green rock rattlesnake, is not only found to be green in colour, but is also found in a variety of other colour variations. Different coloured specimens are sometimes relative to different areas, although sometimes the different colour variants are found in the same area.

#### ■ **Ground dwelling snakes of South-East Asia** by Gernot Vogel.

This lecture is the second part of two lectures, that intended to give an overview of the snake fauna of Southeast Asia. Part one was held two years ago and was titled: 'Tree snakes of Southeast Asia.' Thailand, West Malaysia, Borneo and Sumatra are the regions with the most snake species in the world (David et al., 1994, page 140). The covered area included the whole Sunda region, the small Sunda Islands, Thailand, Malaysia and Indochina. Some animals from New Guinea, The Philippines and South China were also shown.

According to Welch (1988) there are 846 species of snakes in the Oriental Region. Although not the whole Orient was covered in the lecture, Welch's data were presented as an example of the composition of the Asiatic snake fauna. He lists 57 species of the

families Typhlopidae and Leptotyphlopidae, 57 Uropeltidae and Xenopeltidae, 21 Boidae, 3 Acrochordidae, 544 Colubridae, 103 Elapidae 61 Viperidae. The Typhlopidae, Leptotyphlopidae and Boidae were excluded from this lecture.

T give an impression of the amount of ground dwelling snakes living in Southeast Asia, the snake fauna of Thailand was listed (after Cox, 1991):

Worm snakes	8 taxa	
Big Snakes	3 taxa	
Sea snakes	29 taxa	
Poison. snakes	25 taxa	including 12 ground dwelling snakes
Other species	112 taxa	including 66 ground dwelling snakes
together	177 taxa	including 78 ground dwelling snakes

All together 1 species of the family Xenopeltidae, 1 species of the family Uropeltidae, 2 species of the family Acrochordidae, 47 Colubridae, 5 Elapidae and 8 Viperidae were shown on slides, a lot of them in different colour morphs. For each species a short summary on biology, herpetoculturing and natural food was given.

The following taxonomical changes and problems were discussed: Many species of the family Colubridae are small worm-like snakes, that are little known. Often only a few specimens were found due to their secretive way of living. As an example 3 species of the genus *Macrocalamus* were shown including a new, yet undescribed form.

The genus *Lycodon* was recently changed to *Ophites* (Zhao & Adler, 1994). This is based on a misinterpretation of a publication of Boie (1826), so the name should not be changed (Vogel, in prep.). The species *Lepturophis borneensis* and *Lycodon albofuscus* are identical and should be named *Lepturophis albofuscus* in future.

In the subfamily Natricinae, *Xenochrophis piscator* and *X. flavipunctatum* were shown to be clearly different species, as Taylor already pointed out in 1965.

The problems in keeping snakes of the subfamily Homalopsinae were discussed in detail. These animals tend to suffer from lesions. This might be a problem of stress due to too bright lighting (Banks, 1989).

The new arrangement in the species *Daboia russelli* was summarised. At present only the subspecies *D.r. russelli*, *D.r. siamensis* and *D.r. limitis* are valid (Wüster et al., 1992). The genus is now regarded as monotypic (Herrmann & Joger, 1994).

The genus *Calloselasma* is under investigation. It is possible, that *C. rhodostoma* is divided into two species, the second living in Vietnam.

Recently the Cobras, living in Asia were carefully investigated (Wüster and Thorpe, 1992). Eight of the former subspecies of *Naja naja* were raised to full species rank. A distribution map of *Naja oxyana*, *Naja naja*, *Naja kaouthia*, *Naja atra*, *Naja sumatrana*, *Naja sputatrix*, *Naja samarensis* and *Naja philippenensis* was shown, and the reasons for this arrangement were discussed.

In the last section of the lecture, the reasons for the declining of snakes in Southeast Asia were discussed. In the speakers opinion, the most serious threatening is the habitat destruction in these countries. Skin trade and smuggling of living animals for reasons of consuming as food in some Asian countries are also responsible for the death of millions of specimens of the bigger species. The pet trade as well as road killing should not be the major threat for sane snake populations.

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