

## **Montivipera**

### **The Mountain-Vipers of the near and middle East.**

Montivipera is considered to be an own genus sometimes, or to be a subgenus of Vipera.

Within Montivipera we clearly may distinguish two groups, or Rassenkreise (Mertens).

The western xanthina-complex and the eastern raddei-complex.

In the former group the circumocularring ist divided by the Supraocular, while in the second it is complete.

Within the xanthina-group we know the following species:

Montivipera xanthina

Montivipera bulgardaghica

Montivipera bornmuelleri

Montivipera albizona

Montivipera wagneri

The status of all these, except xanthina is not clear now.

Montivipera xanthina is living in the western half of Anatolia in European Turkey and adjected Greece. It also is found on some islands close to Anatolia, like Simy, Lesbos, Samos, Patmos, Lipsi, but not at Rhodos now.

The other four are distributed along the “Anatolian Diagonal”, a mountain ridge from the Gulf of Iskenderun in the southwest to the Armenian High plateau in the northeast.

The author was visiting many populations of Montivipera xanthina, like near Uludag, Mudurnu, Selcuk, Aydin, Kas and Antalya (a visit at the easternmost population(s) at Ercis mountain near Kayseri was not successfull) and some of Montivipera albizona (at the Kulmar mountains

and east of Pinarbasi) and *M. wagneri* (all around Karakurt, Aras-valley).

In the Antalya area we saw *M. xanthina*, both sexes, at first at the end of March.

A male from Mudurnu (1.500 m a.s.l.) was not shed at April, 18<sup>th</sup>, 1998.

Our first visit and finding of *M. wagneri* was at May, 12<sup>th</sup>, 1987. Just the half of the males we have seen have been shed and no mating could be observed. At May, 14<sup>th</sup>, 1993 we came to that locality during the high mating season. At another visit in the middle of May 1998 only unshedded males could be found and no females have been seen.

Tissue and/or blood samples have been taken from *xanthina*, *albizona* and *wagneri*.

Comparison between *M. albizona* from Pinarbasi and *M. wagneri* from Karakurt show just 1% in mitochondrial DNA analysis. This difference was less than between the samples of *M. wagneri* from populations around the *Terra typica*.

Also comparison between *M. xanthina* – from Selcuk (Westturkey) and Antalya (sothwestern Turkey) with *M. wagneri* shows just a difference of about 4%, which is within the subspecies level (S. Schweiger, unpubl. Data).

Within the *raddei*-group we know 3 species:

*Montivipera r. raddei* and *M. r. kurdistanica*

*Montivipera albicornuta*

*Montivipera latifii*

*Montivipera raddei* lives in easternmost Turkey, Armenia and western Iran (northeastern Iraq ??). *Montivipera albicornuta* have their range at the mountains along the Zanzan valley and in the western Elburs mountains, while

*M. latifii* is just known from the surroundings of the Lar valley in the Elburs mountains northeast of Teheran.

Also here, the status of – at least – *M. r. kurdistanica* and *M. albicornuta* is not clear yet.

Counting scales of more than 300 specimens within this group and computing the data show no really difference with the exception of *M. latifii*.

There is NO difference between *M. r. raddei* and *M. r. kurdistanica* (maybe within the markings) and just a very small one between (all) *M. raddei* and *M. albicornuta*. Typical *albicornuta* may be found in *M. raddei* populations also – scale counts and markings.

The author only visited populations of *M. raddei* in eastern Turkey. At May, 16<sup>th</sup>, 1993 we observed many specimens while mating.

All mountain vipers are rock-dwellers and may be found in rocky, sunny forests, in gorges and at rocky mountain slopes.

While *M. xanthina* lives from sealevel up to 1.600 meters a.s.l. all others have their lower limit at about 1.400 meters and climb up to nearly 2.000 meters above sea level.

The author kept and bred *M. xanthina* (southern and northern forms), *M. wagneri* and *M. r. raddei*.

After a hibernation period of 3 to 4 month and shedding of the males, mating takes place. The gravidity lasts 90 to 120 days. 5 to 18 young have been born. There is a strong correlation between the size (and age) of the mother and the number of offsprings.

Within 12 month, including a hibernation time of 6 weeks, the young reached length of about 45 cm.

They are fed with mice from the beginning and most baby-vipers will take them by themselves. When vipers don't want to eat, a pink mouse is struck to their head till they bite by a pair of tweezers. After this they will eat the mouse.

Captive bred *Montivipera wagneri* didn't reach the brightness of the wild caught adults. This may be a lack of nutriment. As seen in spring, the first food after hibernation – of young and adults - seem to be grasshoppers. Fresh collected *M. wagneri* disgorge dozens of these large insects.