# A multivariate approach to the systematics of Italian rat snakes of the Elaphe longissima complex (Reptilia, Colubridae): revalidation of Camerano's Callopeltis longissimus var. lineata

Herpetological Journal, vol. 9, pp. 153-162 (1999)

## Peter Lenk1 and Wolfgang Wuster2

1 Hessisches Landesmuseum Darmstadt, Zoologisches Abteilung, Friedensplatz, D-64238 Darmstadt, Germany

"School of Biological Sciences, University of Wales, Bangor LL57 **2UW, UK)** 

We used multivariate analysis to study patterns of geographic variation in morphology in the Aesculapian snake, Elaphe longissima, in Italy and other parts of its range, in order to evaluate the status of the southern Italian form, hitherto known as

### E. I. romana

. Although that taxon was previously regarded as weakly differentiated, a recent study based on blood proteins showed a high level of differentiation, similar to that observed between full species of European

### Elaphe

. Fourteen characters relating to external morphology were recorded from 104 adult specimens of

#### Elaphe longissima

from 52 localities, and subjected to multivariate analysis. The results show that southern Italian specimens are clearly distinct from those of other populations. The morphological divergence is coupled with a parapatric distribution pattern and a sharp transition at the contact zone in central Italy. We found the distribution limits of the two taxa to be situated about 100 km further south than previously suggested. Parapatry among morphologically clearly distinct forms, and differences in blood plasma suggesting considerable evolutionary divergence, provide reasons for considering the southern Italian form as a separate evolutionary species from

### E. longissima

. The name Coluber romanus Suckow, 1798 is not available for the southern Italian species, for which the oldest available name is

Callopeltis longissimus var. lineata

Camerano, 1891, in the combination

Elaphe lineata

A multivariate approach to the systematics of Italiar	n rat snakes of the Elaphe longissima complex (Reptil
Ultimo aggiornamento Domenica 19 Dicembre 2010 17:29	

Per leggere l'articolo completo clicca qui: <u>DOWNLOAD</u>