



XX European Congress
of Herpetology
Milan, 2-6 September 2019

PROGRAM & ABSTRACTS



UNIVERSITÀ
DI PAVIA



mnm Museo di Storia
Naturale di Milano

Organising Institutions:

Societas Europaea Herpetologica (www.sch-herpetology.org)

Università degli Studi di Milano (www.unimi.it)

Università degli Studi di Pavia (www.unipv.it)

Museo di Storia Naturale di Milano (<https://www.comune.milano.it/museostorianaturale/>)

Università degli Studi di Milano-Bicocca (www.unimib.it)

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Welcome to Milan!

We are glad to host the XX European Congress of Herpetology, which has been co-organized by the University of Milan, the University of Pavia, the Natural History Museum of Milan and the University of Milano-Bicocca. Participants from 40 countries across the world registered for the event, and we hope that our congress will be a great moment of scientific discussions and social exchanges. We will have about 200 talks and more than 100 posters covering a very wide range of topics, from systematics to conservation issues, from methodological tools to ecology and ethology. We also have a rich program of social events that will certainly facilitate the exchanges and the discussions.

Milan is also a beautiful city with a great nightlife, and can be an excellent starting point for visiting the rich biodiversity of Italy. We really hope you will enjoy the congress and your stay in Milan!

The Organizing Committee

Our logo

The “Biscione” (big snake) in the act of consuming a child is the heraldic emblem of Milan since the Middle Ages. According to the legend Bonifacio, lord of Pavia, was married with Bianca, daughter of the Duke of Milano. While Bonifacio fights against the Saracens, his son is kidnapped and devoured by a giant snake. When coming back from the war, Bonifacio searches the snake, kills him, and finds his son still alive!

In our logo, the Biscione is eating a herpetologist, instead of the Bonifacio’s son...



**SEXUAL DIMORPHISM IN DIGITS LENGTH AND THEIR RATIOS IN
SALAMANDER SPECIES (SALAMANDRIDAE)**

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In recent decades, digit ratio has attracted considerable attention in biology. It has been suggested that the digit ratio may be used as a biomarker of early developmental effects. In particular, the second-to-fourth digit ratio has been linked to the effects of sex hormones and their receptor genes. Also, this ratio is a morphological feature that is important for tetrapod locomotory performances in different microhabitats. Here, we focus on examining sex differences in digit ratios (2D:3D, 2D: 4D and 3D: 4D) in 15 species of the family Salamandridae with different patterns of aquatic to terrestrial locomotion. The main questions of this study are: (1) whether sexual dimorphism exists in digit length and their ratios (2) whether size, phylogeny or ecology has an influence on digit length and its ratios. We assume that different selective pressures related to aquatic and terrestrial locomotion could override the prenatal developmental cues. The results suggest a different degree of dimorphism in analyzed digits and digits ratios in analyzed salamanders, with strong effects of ecology, i.e. the proportion of time spent using each locomotion type, swimming or walking, implying that function has a large impact on limb growth. The results of our study are in line with others which can help to evaluate whether the developmental or functional processes have the most impact on limb evolution.