Primate Day

Firenze, 25 Ottobre 2014

dalle 10.00 alle 18.00

Palazzo Nonfinito - Via del Proconsolo 12 (Firenze)

ABSTRACT

3D Geometric Morphometrics To Investigate Cercopithecini Evolution

Stefania Lo Bianco[a], Luca Sineo[a]

[a] Dipartimento di Scienze e Tecnologie Biologiche, Chimiche e Farmaceutiche (STEBICEF), Università di Palermo, Via Archirafi 18 (Palermo) Italia.

3D Geometric Morphometrics has been used on a preliminary dataset of 163 crania and 148 mandibles of primates. We sampled 27 species from Cercopithecidae and Hominidae, collected in 7 different museums. Our sampling campaign was carried on with the use of a 3D-digitizer Microscribe G2X and the data were processed through the software Morphologika.

The preliminary PCA analyses on crania highlight the presence of two different groups, which distinguish some Chlorocebus and Unknown Cercopithecus samples from all the others. Regarding on mandibular shape analyses, we found a light cluster of Cercopithecus samples.

The "Sex" variable does not affect the reliability of the analysis, probably because interspecific differences are greater than intraspecific ones. In regard to the "Age" variable, it can be notice that "infant" samples gather separated from "adult" ones, while "juveniles" lie in the middle.

The morphometric methodology is very useful for evolutionary study, especially when the taxonomy of some samples is unknown. Furthermore, this is the first morphometric study on a so-wide survey of the entire Cercopithecini tribe.

Key words: Geometric Morphometrics · Cercopithecini · Evolution · Crania · Mandibles