

Lyras GA, Van Der Geer AAE, Dermitzakis MD. 2001. Evolution of the brain of Plio-Pleistocene wolves. *Cranium* 18(2):30-40.

The living subfamily Caninae can roughly be divided into three groups: the dogs, the foxes and the South American canids, which started to diverge somewhere in the Miocene. Here the evolution of the dogs is dealt with, starting with the genus *Eucyon*, which originated in North America during the Miocene, and spread over the Old World. During the Pleistocene, the dogs were abundant in Eurasia, with as most well-known representative the Etruscan wolf, *Canis etruscus*, and later, during the Late Pleistocene the gray wolf, *Canis lupus*. The evolution of the dogs is followed on the basis of the evolution of their cerebrum. The specific patterns of grooves and folds on the cortex make an impression on the inner side of the neurocranium. By making a cast of this inner side, this pattern is revealed. The authors made such casts (endocasts) of all living dogs and the red foxes, plus a number of fossil species and compared grooves on the sensory-motor region. Dogs (*Canis*, *Cuon*, *Lycaon*) have long, broad and bilaterally compressed prearcuate gyrus, and an orthogonal pattern of the grooves on the sensory-motor region. *Eucyon* appears to be rather close to the *Vulpes*-pattern, whereas *Canis lepophagus* is very similar to the living *Canis*. *Vulpes stenognathus* doesn't differ significantly from the living *Vulpes*.