The endemic insular canid *Cynotherium sardous* has been known for 1 1⁄2 centuries, yet its phylogenetic position remained unsolved. This was because inherited ancestral characters and acquired adaptations to different ecological pressures could not be separated. In this study the problem is approached again, with the use of morphological features that were either overlooked or could not be explained properly, combined with results from recent major revisions of canid phylogeny. It appears that *Xenocyon* is the ancestor of *Cynotherium*, and that this large hypercarnivorous canid, once on the island, faced a rather different menu consisting of small prey only. The subsequent necessary adaptation resulted in a small-sized dog whose dentition remained much the same, whereas its skull lost the typical fortifications seen in the other hypercarnivorous canids; these are considered superfluous for *Cynotherium*, which had to exchange big and strong prey for small and fast prey.

© the Society of Vertebrate Paleontology