

Preliminary study of bite patterns according to skull shape, by morphological and morphometric analysis of dental semi arcs of domestic dog (*Canis familiaris*) for identification Estudio preliminar de patrones de mordedura según forma del cráneo, mediante

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Forensic dentistry is a branch of Forensic Sciences used to establish the identity of a crime victim or perpetrator, among these studies are bite marks and dental chronological age studies. In the absence of such studies in Chile and considering the widespread problem of dog bites in Chile, bite patterns were compared according to skull shape, by morphological and morphometric analysis of dental semi arcs of domestic dog (*Canis Familiaris*) for medico legal purposes. Plaster dental models and impressions of bite marks were obtained of three pure breeds: Boxer, Dalmatian and German shepherd. Measures included the maximum external distance between upper and lower canine, and maximum external distance between upper and lower incisors. Main results show that only the maximum distance between upper canine would allow statistically significant race identification, ($p < 0.05$) in cast models. In a blind study and from a morphometric point of view, Dalmatians were identified with a high rate of sen