F16 A Comparison of Intercanine Widths Among Various Animals and Humans

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The goal of this presentation is to present visual and dimensional data to determine the origin of various bite marks of animals and humans where canine teeth are most prominent.

This presentation will impact the forensic community and/or humanity by differentiating mammalian bite sizes from small (mouse) to large (grizzly bear). This will enable investigators to determine the origin of teeth marks on bodies of deceased victims.

This poster will present photographs and measurements from various animal and human skulls, to establish guidelines to assist investigators in determining the origin of teeth marks on human bodies.

Remains of unidentified persons are usually discovered in buildings or outdoors. If death has been fairly recent, bite marks may be registered on the skin. However, if some time has elapsed since death, there may be bite marks on the skeletal remains. One of the essential questions to answer is whether the bite marks are of human or animal origin? There have been recorded cases where domesticated dogs or cats have nibbled and gnawed on their dead owner's body, when death occurs in the home. Also, there have been many individuals discovered outdoors, in a field or a forest, with teeth marks on the flesh or on the bones.

It was decided to survey representative animal bite marks, to enable investigators to determine whether humans, animals or rodents were involved. Since the canine teeth (cuspids) are the most prominent in most mammals, only the distance between the canines was measured. Both the maxillary (upper) and mandibular (lower) teeth were recorded.

The photographs and measurements were made from two worldrenowned skull collections: a. The California Academy of Sciences, Department of Ornithology and Mammology, San Francisco. b. The University of the Pacific, School of Dentistry, Institute of Dental History and Craniofacial Study, San Francisco.

Data will be presented showing the intercanine width of various animals, including mice, rats, dogs, cats, wild cat, lynxes, mountain lions (pumas), California bears, grizzly bears, and adult humans. This data should prove helpful to various trauma and crime scene investigators.

Bite Marks, Animal Bites, Intercanine Widths

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