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Sexual dimorphism in perissodactyl rhinocerotid *Chilotherium wimani* from the late Miocene of the Linxia Basin (Gansu, China)

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Sexual dimorphism is reviewed and described in adult skulls of *Chilotherium wimani* from the Linxia Basin. Via the analysis and comparison, several very significant sexually dimorphic features are recognized. Tusks (i2), symphysis and occipital surface are larger in males. Sexual dimorphism in the mandible is significant. The anterior mandibular morphology is more sexually dimorphic than the posterior part. The most clearly dimorphic character is i2 length, and this is consistent with intrasexual competition where males invest large amounts of energy jousting with each other. The molar length, the height and the area of the occipital surface are correlated with body mass, and body mass sexual dimorphism is compared. Society behavior and paleoecology of *C. wimani* are different from most extinct or extant rhinos. M/F ratio indicates that the mortality of young males is higher than females. According to the suite of dimorphic features of the skull of *C. wimani*, the tentative sex discriminant functions are set up in order to identify the gender of the skulls.

Key words: Mammalia, Perissodactyla, *Chilotherium wimani*, sexual dimorphism, statistics, late Miocene, China.

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