

ANALYSIS OF CATTLE METACARPAL BONES DATED FROM THE XIII TO XVII TH CENTURIES

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Summary. The measurement data of bones excavated in Lithuania presented a great variety of data of metacarpal bones during different periods between the XIII and XVII centuries (figure 1).

Analysis of metacarpal bones of cattle remains excavated from the XIII to XIV th centuries at Pajautos vāley, Kernavė (table 1) shows the length of metacarpal bones to range from 153.0 mm to 188.0 mm. The breadth of proximal metacarpal part ranged from 41.0 to 53.6 mm, the breadth of diaphysis – from 22.9 to 28.0 mm and distal metacarpal part – from 45.0 to 56.8 mm.

The metacarpal bones dating to the XV th century, excavated at the Town hall square in Kaunas (table 2) varied from 149.0 to 168.0 mm in length, proximal metacarpal part ranged from 46.5 to 60.5 mm, diaphysis breadth – from 23.1 to 30.3 mm and distal part was as long as 48.1 to 60.2 mm.

The length of metacarpal bone excavated at the site of Kaunas castle (table 3) dating to the XV and XVI centuries was similar to that of the measurement obtained from metacarpal bones excavated at the sites of Kernavė (GL – 151.0 to 182.0 mm; Bp – 42.6 to 60.5 mm; SD – 22.4 to 30.3 mm; Bd – 43.0 to 59.2 mm).

The data of the XVII th century (Vilnius presidents' residency and Anykščiai town) varied with the area of excavation i.e. the length of metacarpal bone (GL) excavated in Vilnius city has a wider range (table 1 and 6) in comparison with the material excavated at the old city of Anykščiai (table 5).

The presented data suggest the index of a distal metacarpal part ($S_3 = Bd * 100/GL$) to be most appropriate for sex determination.

In generalizing the presented data we affirm that in Lithuania from the XIII th to XVIII th centuries the length of cattle metacarpals ranged from 149.0 to 188.0 mm. Having calculated the indices (S_1 , S_2 , S_3), we consider the breadth measurements of distal metacarpal part (Bd) to serve best for sex determination.

Keywords: metacarpus, cattle, XIII-XVII century, Lithuania.