THE CHRONOLOGY OF TOOTH DEVELOPMENT IN WILD BOAR – A GUIDE TO AGE DETERMINATION OF LINEAR ENAMEL HYPOPLASIA IN PREHISTORIC AND MEDIEVAL PIGS

Ola Magnell1, Richard Carter2
1Historical Osteology, Department of Archaeology and Ancient History, Lund University, Sandgatan 1, 223 50 Lund, Sweden: Phone +46(0) 46 2224466; e-mail: ola_magnell@yahoo.com
2Sussex Institute, University of Sussex, Falmer, Brighton, BN1 9QQ, England: Phone +44(0) 1273 872956; e-mail: r.j.carter@sussex.ac.uk

Abstract. Linear enamel hypoplasia (LEH) is transverse lines or bands on the enamel of teeth caused by developmental stress during the formation of the tooth crown. LEH has shown to be useful as a stress marker in studies of health conditions in past populations of pigs. The chronology of LEH and the age at which animals of past populations where afflicted by metabolic stress can be determined based on tooth formation. Tooth development in wild boar has been determined based on radiographs of 55 mandibles with known age of death. A user-friendly diagram of tooth development in wild boar has been made for determination of the chronology of LEH in archaeological pigs. The implications of the presented tooth development for the interpretation of chronology of LEH are also discussed.

Key words: linear enamel hypoplasia, tooth development, pigs, wild boar, age determination.