ON PELVIS MORPHOMETRY OF THE ROOT VOLE MICROTUS OEConomus
(Pallas, 1776)

Laima Balčiauskienė, Linas Balčiauskas
Institute of Ecology of Vilnius University, Akademijos 2, LT-08412 Vilnius-21, Lithuania
Phone: +370-5-2729278, fax: +370-5-2729352, e-mail: laiba@ekoi.lt; linasbal@ekoi.lt

Summary. The aim of this study was to assess pelvis morphometry in the root vole (Microtus oeconomus) and to
test if pelvis measurements or indices differ depending on vole sex, age and, particularly in females, breeding history.
After measuring the length of the ischium (P1), the greatest length of the pubis (P2) and the width of the pubis (P3) in
445 vole individuals strapped in 2004–2008 in Lithuania, it was found that the most significant differences in the pelvis
between males and females of M. oeconomus were in adult animals. The main sex-related difference in the pelvis of
these voles was the width of the pubis. In all age groups of males, index P1/P2 was higher compared to females, while
P1/P3 and P2/P3 were statistically significantly lower (P<0.05). After puberty, the width of the pubis gained almost 3-
fold increase in males, while in females it remained the same.
According to parousity, the length of the ischium and the
greatest pelvis length were growing in the following order: nulliparous < primigravid < primiparous < multiparous
females (differences not significant). The width of the pubis and index P1/P2 did not change. Differences in indices
P1/P3 and P2/P3 were statistically significant between nulliparous and primiparous females.

Key words: root vole, Microtus oeconomus, pelvis morphometry.