

**GENERAL MORPHOLOGY AND SPATIAL DISTRIBUTION OF
BURROW ENTRANCES OF THE MICROTINE RODENT *MICROTUS
GUENTHERI* (DANFORD & ALSTON, 1880) IN THE NATIONAL PARK
OF DADIA - LEFKIMI - SOUFLI FOREST**

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The present research investigated the spatial distribution and morphology of burrow entrances of the microtine rodent *Microtus guentheri* (Danford & Alston, 1880) in Greece. Five study areas (Livadi, Pessani 1, 2, 3, 4) in the National Park of Dadia - Lefkimi - Soufli Forest in Evros, Greece, were examined between 2004-2006. Depth until first angle, entrance diameter, inclination, and orientation of a total of 1621 burrow entrances was measured and their location in the study areas was determined. Regarding burrow metrics, no significant differences across sites were detected. Three of the study areas showed no correlation between the recorded parameters. However, significant correlations between inclination and depth and orientation were detected in Livadi, whereas in Pessani 1, depth correlated significantly with inclination and diameter. Mean burrow entrance diameter was 5.4 ± 1.0 cm, mean burrow depth 17.3 ± 7.9 cm, and mean burrow inclination $47.1 \pm 17.9^\circ$. Mean entrance orientation was $163.3 \pm 95.7^\circ$, facing mainly south-southeast. Finally, mean density was 0.82 burrows/m², and our dispersion analysis (Ripley's K-function) in each area showed that burrow entrances were mainly aggregated up to a distance of 4-7 m, beyond which they were randomly distributed. Burrow metrics and distributional patterns were similar to those recorded for other microtine species across Europe, and accorded with environmental factors, as in most semi-fossorial mammals in similar habitats. These results showed that analogous investigations may provide cost-effective and non-invasive ecological and population assessment for semi-fossorial rodent species.