



Lake Erie Millennium Network

Binational Research and Monitoring for the Millennium

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Abstract Guidelines

1. The body of the abstract should not be longer than half a page.
2. The title should be centered and boldface with all authors listed below the title (not boldface).
3. The presenter's name should be listed in full and underlined; for all other authors, provide only the initials and last name.
4. Include each author's affiliation by using superscript numbers and listing the affiliation in order below the by-line.
5. Each affiliation should include the department, organization, city (or town), province (or state) and country.
6. Please use Times New Roman (12 point) font.
7. If you have any other questions, please contact Silviya Ivanova (ivanovas@uwindsor.ca).

Example

Behavioural Ecology and Distribution of Invasive Mordor Orcs (*Orcus vulgaris*) with Special Reference to Lake Erie Islands.

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Although orcs (*Orcus vulgaris*) are becoming increasingly common outside of Mordor, pillaging and setting fire to human towns, little is known about their behavioural ecology. Furthermore, with their expansion outside of their natural range within Mordor, the importance of monitoring their distribution is ever mounting. This study sought to document Mordor orc behaviour within their native range, and to determine their natural and invasive distributions. We used weighted net traps to capture, mark, and GPS tag over 1,000 orcs within Mordor. To investigate orc behavioural ecology, we monitored orcs over multiple years, establishing a fortified field station inside Mordor where we recorded observations of orc feeding ecology, group interactions, fire lighting habits, and dominance displays. To determine orcs' natural range, we carried out aerial surveys, documenting the locations of orc settlements. We also analyzed GPS data from nomadic warrior orcs to determine the range of their invasion into greater Middle Earth and potential for expansion to selected islands of western Lake Erie. Our data reveal alarming patterns of spread from central Mordor into the Shire, Gondor, and Mirkwood, where orcs thrive and outcompete the native fauna, but little evidence of occurrence in Lake Erie. Detailed trapping and analysis of MORDIS remote sensing failed to detect evidence of Orc activity on West, Middle or East Sister islands. Anecdotal reports of possible week-end Orc activity on South Bass Islands and around the Perry National Monument were attributed to typical festivities by native taxa. Overall, our study provides new insight into the behavioural ecology of Mordor orcs, and strongly suggests that future research should prioritize rapid response strategies against potential invasions.