

# EUREC 99



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**The  
European  
Dimension  
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*Perspectives  
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ABSTRACTS

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## **USE OF FRACTAL METHODS TO ANALYSE VEGETATION PATTERNS UNDER THREE VEGETATION REGIMES IN MT VERMION**

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Fractal dimension has become popular in recent years as a possible method of describing ecological distributions that are poorly described by traditional means. Such a description depends on a consistent pattern of self-similarity prevailing over a wide range of scales. However, most ecological data-sets do not span a wide range of scales, so the interpretation of a measured "dimension" can be problematic. Monte-Carlo simulation can provide a means of checking the validity of such results.

We analysed the distribution of vegetation types in Mt. Vermion subject to different grazing pressures, using both box-counting and semi-variogram techniques to estimate "dimension". This was done in five replicate 50m transects. We present the results of this analysis, and a statistical interpretation of them via computer-simulations, in which the measurement process was simulated over model distributions of known scaling properties. We also examine whether "dimension" can be used as a means of estimated grazing pressure.

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