

# Comparing Indicators Effectiveness for Monitoring Visitor Impact in Intervales State Park, Brazil: Wanders-Measured Versus Specialist-Measured Experience

Anna Julia Passold<sup>1</sup> and Teresa Cristina Magro<sup>2</sup>

<sup>1</sup> e-mail: annajulia@gmx.net

<sup>2</sup> Forest Department, ESALQ, São Paulo University, Piracicaba, Brazil  
e-mail: tecmagro@esalq.usp.br

Few investigations of existing visitor impacts assessment and monitoring methodologies have been conducted in Brazil natural protected areas. Although these applications are currently limited, they provide some tools for decisionmaking and management of visitors. However, there is a gap between the research results and its implementation in fieldwork. Scarce funding, insufficient staff, often inadequately trained in park management and lack of a special independent administrative body are bottlenecks in effective protection of Brazilian parks. In order to implement scheduled duties to perform recreational use monitoring it is necessary to select reliable and feasible indicators. To achieve these goals, this paper discusses the difference in data collection between wanders and specialists. A team consisted of Intervales State Park wanders and specialists performed the fieldwork at four heavily used trails. Measurements of 32 indicators of physical attributes were taken at each site, using systematic point sampling. The differences amongst the two groups were statistically significant for extent of diseased vegetation, density of vegetation, composition of vegetation, soil drainage, trail width, number of stone exposure, amount of litter cover, visible erosion, number of not-official trails, amount of litter, presence of wildlife sightings. Results suggest considerable subjectivity in assessment procedures for some indicators. The findings can be used for the implementation of a monitoring routine and guidelines set for planning and management of visitor flows in other Brazilian parks.