A Functional Monitoring System for Visitation to Protected Areas

Clemente Fernandez ¹ , Francisco J. Acosta² , Jesus M. Barandica³ , Francisco Lopez⁴ , Juan M. Zorrilla⁵ and Paloma Martin⁶.

The System of Analysis of Visitation to Protected Areas (in Spanish, SAVEP) is a monitoring methodological protocol designed for optimizing collection, integration, and application of the information required for the management of visitors in protected areas. It synthesizes, from a technical perspective, the existing knowledge, experience and needs of a large and diverse group of visitor use managers. Its design responds to the objective of providing the Spanish National Park System with a common technical language and a functional environment of comparison for a wide variety of specific situations and problems concerning visitation.

The basis of this analytical system is constituted by a modular definition of the visitation system as a procedure for formalizing its real structure: a few basic, modular elements (decision points -trail bifurcations, etc.-, accumulators -trail segments- and entrances/ exits) can be combined in a very operational fashion to give rise to a synthetic and functional representation of any possible visitation system. On this modular formalization, visitor flow can be readily obtained from the combination of the trail itineraries with the frequency analysis of temporal variation in trail use.

The analytical possibilities of the SAVEP include visitor density, the potential environmental impacts caused by visitors, as well as the quality

¹Dpto. de Ecologia. Facultad de Biologia. Universidad Complutense. Avda. Complutense s/n. 28040 Madrid. Spain. (e-mail: tifar@bio.ucm.es). of the visitor experience. Temporal dynamics are functionally explicit in these analyses, since they are postulated as essential for any studies on carrying capacity. The SAVEP allows any spatial and temporal resolution of analysis, as well as the consideration of any concurrent displacement modes.

References

- Gimblett, R., Daniel, T. & Meiner, M.J. 2000. USDA Forest Service Proceedings RMRS-P-15, 4: 99-106.
- [2] Belna, J., Freimund, W.A., Hammett, J., Harris, J., Hof, M., Johnson, G., Lime, D.W., Manning, R.E., McCool, S.F. & Rees, M.1997. The visitor experience and resource protection (VERP) Framework. A handbook for planners and managers. Denver Service Center. National Park Service. US Department of the Interior.
- [3] Wang, B. & Manning, R.E. 1999. Computer simulation modeling for recreation management: a study on carriage road use in Acadia National Park, Maine, USA. Environmental Management 23: 193-203.

²(e-mail: fjacosta@bio.ucm.es).

³(e-mail: jmbarand@bio.ucm.es).

⁴(e-mail: francisco.lopez@bio.ucm.es).

 $^{^{5}}$ (e-mail: jmarzor@bio.ucm.es).

 $^{^{6}}$ (e-mail: palomamg@bio.ucm.es).