

ABSTRACT

MODEL OF ENVIRONMENTAL SUITABILITY FOR THE WOLF IN TRENTO

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The project arose as a thesis of the professional institute for agriculture and the environment of San Michele all'Adige thanks to the contribution of Mr Claudio Grof (provincial forest service) and thanks Mr Davide Dalpiaz's help, my tutor during the specialising apprenticeship at Museo Tridentino di Scienze Naturali. The starting situation was focused on the quick re-colonization of the Alps pursued by the wolf, but no one made any kind of study about the territory-suitability for the presence of an animal gone extinct more than a century ago.

Therefore the project was created to answer these kinds of questions using a very current analysis-method very actual: the Expert Model.

This system, without reasonable banking-statistics, makes a reliable data-base that relates the territory's conditions with the behavior and the features of the animal, with which it is then possible to build a cartographic model. The database is created by using statistics, collected with the help of a questionnaire subjected to connoisseurship.

We began by collecting notes about the method, especially by studying a similar project by Kora concerning the brown-bear's coming back to Switzerland, carried out by Mrs Petra Zajec. Point by point we started with the creation of a program adapted to the wolf and to the territory of Trento, we sent it to 40 connoisseurship of eight different european countries. In time for the statistic elaboration nine questionnaires were returned, while many other answers have given precious and helpful advice.

The results were elaborated with the Chauvenet method, a statistical method that helps to achieve a single representative figure, extracted from a lot of statistics using medias and standard deviations. It is from these studies that the data-base came out to get into cartography.

The software used is ArcView 3.0 and 2 digital vector cards and 2 digital raster cards have been re-elaborated of the first two cards, one represents the real use of the ground and the other the urban use of the ground: The other two cards represent the virtual model of the territory and the slopes map.

Thanks to a geographic elaboration we get two different cartographic maps, so that by using this cards we cannot combine due to the insufficient power of the machineries, but anyway they are considered useful thanks to a simple logical process.

The model has explained the questions about an environmental suitability over 80%, decidedly high but realistic compared with the features of Trento.

The model has also given many other analysis rises to the coming back of the wolf, especially in regards to access opportunities. Cartography, as a matter of fact, has recognized three possible access corridors in western Trento. The first one runs between the Val Daone and Val Canonica, the second one at Passo del Tonale and the last one between Trentino and the Alto Adige near Mendola. The other problem expressed by the model is the presence of an interior barrier between the western and eastern Trentino, established by the valley Adige.

All these indications are fundamental to the planning specific operations for mitigating the presence of the wolf in Trento and to transform the problem into richness.

The project has been to me a peculiar performance surrendered by Mr Dalpiaz. This adventure should produce a study certainly not professional, but valid that has given me a lot of very important experiences in the world of research and the natural sciences, helping me in the selection of my university path.