In a country such as Scotland, there is little land, if any, that has escaped the influence of humankind in one way or another. The degree of human influence varies along a continuum from, for example, the city centre office block, to a very remote mountain hilside. Despite the effects of human influence, the landscapes at the latter end of the continuum are still perceived by many as wild and are relatively untouched. Wild land is valued for both utilitarian and intrinsic reasons and provides a range of benefits. However, owing to the subjective nature of current wild land definitions, these values and benefits are rarely taken into account in current land use management and new developments. The aim of this study was to define in spatial terms the concept of wild land in Scotland using people’s visual perceptions of the landscape. This was achieved through the development of a method to define objectively wild land by quantifying the wildness of a location based on the surrounding landscape attributes. The main objectives of the study were an assessment of the physical and perceptual characteristics of wild land, the examination of the current wildness of a range of Scottish areas which in turn enabled the stability of wild land perceptions over time to be evaluated in comparison with existing data. The perceptual nature of wild land necessitates a multidisciplinary approach and requires a broad range of opinion to be consulted in its definition. The use of a photographic questionnaire enabled the views of those living nearby and visiting potential wild land areas to be gathered. The photographs represented the range of characteristic landscape attributes within the two study areas of the Cairngorms and Wester Ross, and were rated for their wildness. The extent of visible landscape attributes was quantified using a geographical information system (G.I.S.) and was used along with wildness ratings to develop and test predictive wildness models using multiple linear regression techniques. Wildness models were then applied within each of the two study areas, producing maps of wild land that could then be used in decisions on future planning and conservation issues.
The use of Geographical Information Systems (GIS) for wilderness mapping is a recent development, though several attempts to map wilderness using this technology have already been made that cover a range of different areas across the globe (for example, Lesslie and others 1988; Lesslie and Maslen 1995; Henry and Husby 1994; Kilskey and Kearsley 1993; Kilskey 1994; Carver 1996). In order to map wild land areas at a local level, other wilderness indicators need to be taken into account. There are two main factors that have a strong influence on wild land perception in Scotland and can be quantified. One factor is closely linked to the idea of the ‘long walk in’ and termed here as ‘remoteness from mechanized access.’ The wild boar is an important crop raider as well as a reservoir and agent of spread of swine diseases. Due to increasing densities and expanding ranges worldwide, the related economic losses in livestock and agricultural sectors are significant and on the rise. The units can be very heterogeneous in shape, size as well as in terms of land use and environmental characteristics. Aggregated population data does not account for this variation among and within the units [21], and they are difficult to model [22]. All GIS layers were re-projected to the Polar Lambert Azimuthal Equal Area and re-sampled (with the bilinear interpolation method) to 1 x 1 km² before performing spatial analysis. Spatial analysis was performed in ArcGIS 10.0 (ESRI) and statistical analysis in R 3.1.0 [44].

4 Methods of wilderness mapping
The way you define wilderness will influence the way you are going to map it. u Ecological vs perceptual definition u Rob Lesslie: ‘undeveloped land which is relatively remote and undisturbed by the process and influence of settled people’ u The whole of Australia was mapped using 4 criteria: naturalness, apparent naturalness, remoteness from access and remoteness from settlement. 5 Methods of wilderness mapping u Definition by Nash ‘There is no specific material thing that is wilderness.’ u Kilskey and Kearsley (1993) mapped multiple perceptions on wilderness based on that definition.