IDENTIFYING ROADLESS AREAS IN EUROPE

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Abstract

A considerable number of studies has shown that transportation networks and the consequential secondary development are determinant factors of habitat fragmentation and biodiversity loss. Thus roadless areas' conservation (RAs) should be promoted in Europe, offering at the same time ecosystem services and economic profit. Also, broadening protected areas, except from Natura 2000 sites, will probably result in an even more biodiversity-friendly Europe. Our goal was to identify and assess RAs at the European level. Based on a literature review, we concluded that areas should have a distance of at least 1km from the nearest road and a surface of at least 100 km^2 to be considered as roadless. Next we examined the landscape characteristics of the European RAs, along with their spatial relationship with the Natura 2000 network and their distributional pattern according to the European environmental zones. Working at such a large scale (European level) creates some difficulties on the GIS interface (version 10.1). In many cases, the program could not process the data and sometimes crashed, or while supposedly having successfully completed a process, there were obvious errors in the outcome. The identification of RAs as well as their overlaps with Natura 2000 network could form an innovative mean to conserve biodiversity but also a forefront to protect these important areas in a cost and time-efficient way at a coarse scale.