

Effects of the Transylvanian Motorway on droving of livestock

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The network of motorways are presently in a dramatic increase in east Europe, to the benefit of transportation and traffic safety, but with potential negative effects on landscape connectivity. Romania are internationally recognized for its large areas of high nature value grasslands, where the biodiversity is to a large extent depending on traditional land use, including droving of livestock in various spatial and temporal scales. Mobility in the landscape is an expected prerequisite for the continuation of such droving practices, and thereby also for the conservation of the outstanding grassland biodiversity. We studied the effects of the Transylvanian Motorway on traditional droving. The study was conducted along the first operating section of the motorway (42 km), passing through an agricultural landscape in the foothills of the Western Carpatians. We mapped previous and current land use and drover routes in the vicinity of the motorway, based on official land use records, interviews with officials and animal keepers, and field observations. To a large extent, the motorway line coincided with previous borders between land use administrative units, over which few livestock movements occurred even before the motorway was constructed. In other parts, livestock (sheep, cattle, water buffalo and horses) were regularly driven under the motorway through the many large viaducts. Some local adaptation to the motorway barrier was recorded, for example a slight re-routing of movements traversing the motorway corridor, relocation of sheep folds, or adjustment of land use administrative borders. The motorway could have caused some additional land abandonment, but the actual effect was hard to establish due to the highly variable agricultural system with frequent shifts in land use. We conclude that the motorway will not have a dramatic effect on the traditional use of high nature value grasslands in the area, but the situation may be different in a less hilly region, where fewer viaducts are constructed.