

The hay meadows in the SCI „Eastern Hills of Cluj” (Romania): Data about mowing and abandonment

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Romania has around 1,5 million hectares of semi-natural hay meadows, almost all of which are of types listed in Annex 1 of the Habitats Directive; Romania has a duty under EU law to protect, maintain and report on the area and condition of these habitats, even outwith Natura 2000 sites.

This is especially urgent since traditional, extensively used meadows are highly threatened and have suffered a considerable decrease in Romania during the last decades, due to land use change and abandonment. The main drivers behind these developments are the decline of dairy farming and the rural exodus of the young. There is an urgent need to survey the remaining meadow sites and understand the patterns of land use change.

We studied traditional hay meadows in the „Eastern Hills of Cluj” Site of Community Interest in NW Romania. We wanted to answer the following questions:

1. Are the former hay meadows still used for producing hay nowadays and how much of their surface is mown?
2. What conclusions can we draw from the findings for nature conservation efforts and policy?

For identifying the hay meadows documented before 1990 we used cadastral maps from the 1960s and 70s. The mown parcels were plotted in the field and mapped and analysed using GIS software.

Our results show that about half of the former hay meadows have been abandoned and only around one fifth of the former meadow surface were mown in 2012. In some cases the mowing activity has shifted to areas not used as meadows in the past, in general former arable land. Often it can be assumed that the mowing was carried out wherever the terrain was accessible by tractor, but in other cases the ownership parcels can still be detected in the shape of the mown area. A heterogeneous pattern of mown/unmown areas which is promising for maintaining a high species diversity survives in at least some areas. We also carried out vegetation studies which revealed a high environmental value in terms of plant species richness and the presence of rare plant and animal species.

The abandonment of the traditional extensive hay meadows shows that they have lost much of their former social and economic value, but some at least of their environmental value remains. In the short to medium term they could be conserved through agri-environment payments, if these were appropriately designed and targeted.