Project Database of ICP Forests
PROJECT DESCRIPTION

ICP Forests

LRTAP
Long-range Transboundary Air Pollution

PROJECT INFORMATION

Project title: DWpool: Deadwood estimation through forest ecosystems in Europe

Project ID: 89

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PROJECT DESCRIPTION

Dead wood is a typical feature and a key factor of biodiversity in the sense of species richness in natural forests. The amount of dead wood in managed forest is an important indicator for sustainability and biodiversity conservation and dead wood is one of nine pan-European biodiversity indicators for sustainable forest management. However, the knowledge on amounts of dead wood in European forests is very limited. Because European forests have been intensively managed over long periods of time, the late development phases are scarce or completely missing. The dead wood component has led to a severe loss of habitats for saproxylic species. However, we need a reference data for many evaluation from standardised data, which was collected in European forests and includes different forest structural feature and management.

The main actual data was evaluated according to NFI inventory (e.g State of Europe's Forests Report), but there occur diversity of measuring method, so data are difficult to compare. The BioSoil Forest Bidiversity data collected on Level I plots of ICP Forest network includes unique data of dead wood, where the comparable method of measure has been used. Till now, such data as BioSoil Forest Biodiversity have not been evaluated earlier. Actually data base of BioSoil FB project was checked and corrected, so today exists possibility to evaluate this data in European context. Because European forests have been intensively managed over long periods of time, the late development phases are scarce or completely missing. The dead wood component has led to a severe loss of habitats for saproxylic species. However, we need a reference deadwood volume, quality, because:

– Deadwood quality and volume is today one of the most important factor, which influence on the system of nature protection methodology and naturalness evaluation.
– The harmonized results may essentially influence on the forest policy e.g. diversity of DW for certification of forests and management of Natura 2000 sites in EU.
– The deadwood distribution in Europe and their relation to another indicators, could be a base in searching of best indices for naturalness of forests in context of Natura 2000 and others actions.

- Taking specificity and uniqueness of the given data as well as their high utility into consideration, the estimation of deadwood quality and volume will be helpful to analysing other basic elements from BioSoil data base.

The aim of proposed study is to analyse dead wood volume, decay, type diversity in relation to forest types, elevation, stand age, canopy closure and stand species composition, across Europe, to discuss possible explanations of the variation in dead wood volumes among forest types and to provide preliminary estimates of dead wood to be used as a reference for sustainable forest management. The dead wood volume and type is also one of the key indicators used in estimation of conservation status of nature habitats according, so the results could be helpful to evaluate a method in this issue also.