

Preferred session: social and political aspects, including ecosystem services

Type of presentation: oral

Title: Ecosystem services in mixed forests and monocultures: comparing stakeholders' perceptions and scientific knowledge

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Abstract:

This study examines the common ground between current scientific knowledge and stakeholders' perception of ecosystem services in mixed forests versus monocultures. An enquiry was performed within the frame of the project FORBIO aiming at the 'Assessment of the effects of tree species Biodiversity on FORest ecosystem functioning' (<http://forbio.biodiversity.be>). The objective of this enquiry was to confront the perception of the influence of mixed species stands on ecosystem services in Belgium with actual scientific knowledge. The target groups were forest managers, users and scientists. As a general frame for the questionnaire, the 'Millenium Ecosystem Assessment', assessing the consequences of ecosystem change for human well-being, was selected. Respondents were asked to express their degree of agreement with statements related to the provisioning (production/quality, financial return), supporting (biodiversity, nutrient cycling, resistance), regulating (climate, air, soil, water) and cultural (aesthetics, recreation) ecosystem services, comparing mixed species to pure stands. Other questions addressed management objectives and the general profile of participants. The web-based questionnaires (SurveyMonkey) were established in Flemish and in French and invitations to respond were distributed by e-mail among key contact persons of forestry/nature associations, forest managers and scientists. After one month, a total of 142 and 228 responses were collected for the questionnaire in Flemish and in French, respectively. In this paper, we summarize main results by analyzing the profile of respondents and describing their perception of forest ecosystem services. Through the confrontation of this perception with the current scientific knowledge and through the identification of established scientific facts unknown to the general public, we identify gaps in scientific knowledge and ways of improving communication between scientists and managers.