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Studies excluded at full text stage.

Ericsson, T.S., Berglund, H., Östlund, L., 2005. History and forest biodiversity of woodland key habitats in south boreal Sweden. *Biol. Conserv.* 122, 289-303.

Franc, N., Götmark, F., Økland, B., Nordén, B., Paltto, H., 2007. Factors and scales potentially important for saproxylic beetles in temperate mixed oak forest. *Biol. Conserv.* 135, 86-98.

Gjerde, I., Sætersdal, M., Blom, H.H., 2007. Complementary Hotspot Inventory—A method for identification of important areas for biodiversity at the forest stand level. *Biol. Conserv.* 137, 549-557.

Gjerde, I., Saetersdal, M., Rolstad, J., Blom, H.H., Storaunet, K.O., 2004. Fine-scale diversity and rarity hotspots in northern forests. *Conserv. Biol.* 18, 1032-1042.

Götmark, F., Thorell, M., 2003. Size of nature reserves: densities of large trees and dead wood indicate high value of small conservation forests in southern Sweden. *Biodivers. Conserv.* 12, 1271-1285.

Götmark, F., von Proschwitz, T., Franc, N., 2008. Are small sedentary species affected by habitat fragmentation? Local vs. landscape factors predicting species richness and composition of land molluscs in Swedish conservation forests. *J. Biogeogr.* 35, 1062-1076.

Gustafsson, L., De Jong, J., Norén, M., 1999. Evaluation of Swedish woodland key habitats using red-listed bryophytes and lichens. *Biodivers. Conserv.* 8, 1101-1114.

Gustafsson, L., Appelgren, L., Jonsson, F., Nordin, U., Persson, A., Weslien, J.O., 2004. High occurrence of red-listed bryophytes and lichens in mature managed forests in boreal Sweden. *Basic Appl. Ecol.* 5, 123-129.

Jönsson, M.T., Fraver, S., Jonsson, B.G., 2009. Forest history and the development of old-growth characteristics in fragmented boreal forests. *Journal of Vegetation Science* 20, 91-106.

Jönsson, M.T., Fraver, S., Jonsson, B.G., Dynesius, M., Rydgård, M., Esseen, P.A., 2007. Eighteen years of tree mortality and structural change in an experimentally fragmented Norway spruce forest. *For. Ecol. Manage.* 242, 306-313.

Juutinen, R., Kotiaho, J.S. 2010. Finnish Forest Act as a conservation tool in protecting boreal springs and associated bryophyte flora. *Boreal Env. Res.* In press.

Kallio, T.2007. Lahopuun määrä ja laatu Pohjois-Karjalan ympäristötukikohteilla. Master's Thesis. Faculty of Forest Sciences, University of Joensuu. 69 p. (In Finnish with English abstract).

Økland, B., Götmark, F., Nordén, B., Franc, N., Kurina, A., Polevoi, A., 2005. Regional diversity of mycetophilids (Diptera : Sciaroidea) in Scandinavian oak-dominated forests. Biol. Conserv. 121, 9-20.

Pykälä, J., 2007. Implementation of Forest Act habitats in Finland: Does it protect the right habitats for threatened species? For. Ecol. Manage. 242, 281-287.

Pykälä, J., 2004. Effects of new forestry practices on rare epiphytic macrolichens. Conserv. Biol. 18, 831-838.

Roberge, J.-M., Mikusiński, G., Svensson, S., 2008. The white-backed woodpecker: Umbrella species for forest conservation planning? Biodivers. Conserv. 17, 2479-2494.

Sætersdal, M., Gjerde, I., Blom, H.H., Ihlen, P.G., Myrseth, E.W., Pommeresche, R., Skartveit, J., Solhøy, T., Aas, O., 2004. Vascular plants as a surrogate species group in complementary site selection for bryophytes, macrolichens, spiders, carabids, staphylinids, snails, and wood living polypore fungi in a northern forest. Biol. Conserv. 115, 21-31.

Sickel, H., Ihse, M., Norderhaug, A., Sickel, M.A.K., 2004. How to monitor semi-natural key habitats in relation to grazing preferences of cattle in mountain summer farming areas - An aerial photo and GPS method study. Landscape Urban Plann. 67, 67-77.

Siiitonens, J., Hottola, J., Immonen, A., 2009. Differences in Stand Characteristics Between Brook-Side Key Habitats and Managed Forests in Southern Finland. Silva Fenn. 43, 21-37.

Sippola, A.L., 2004. Maintaining biodiversity in managed forests - Results of beetle and polypore studies in boreal forests. Towards the Sustainable use of Europe's Forests - Forest Ecosystem and Landscape Research: Scientific Challenges and Opportunities , 259-271.

Sverdrup-Thygeson, A., 2001. Can 'continuity indicator species' predict species richness or red-listed species of saproxylic beetles? Biodivers. Conserv. 10, 815-832.

Uliczka, H., 2003. Forest biodiversity maintenance. Acta Universitatis Agriculturae Sueciae - Silvestria , 40 pp. + Appendices I-V.