

Canopy cover favours sporocarp-visiting beetles in spruce forest

Bjørn Økland

Økland, B. 2002. Canopy cover favours sporocarp-visiting beetles in spruce forest. *Norw. J. Entomol.* 49, 29-39.

Several studies conclude that sun-exposed habitats with sufficient supply of dead wood are essential for many saproxylic and mycetophagous beetle species in forests. This has induced Scandinavian foresters to leave artificial tall stumps on clear-cuts in spruce forests. In the present study of Norway spruce forest, habitat preferences during flight were studied for saproxylic and mycetophagous beetles recorded as sporocarp-visitors of *Fomitopsis pinicola* and *Fomes fomentarius*, using 690 randomly placed window traps in 69 sites covering three forest types: clear-cuts, young and oldgrowth stands. Many of the sporocarp-visitors showed a strong preference for oldgrowth forest, avoiding clear-cuts and young replantations. By stepwise linear multiple regression, presence of canopy cover appeared as a major factor while variables associated with sporocarps and dead wood were most often secondary in importance. The results indicate that sufficient canopy cover is important for many sporocarp-visiting beetles in Norway spruce forests.

Key words: Biodiversity, Coleoptera, dead wood, flight activity, microclimate, polypore fungi.

Bjørn Økland, Norwegian Forest Research Institute, Høgskoleveien 12, N-1432 Ås, Norway.