

# **MACROMOTH BIODIVERSITY ACROSS FORESTED LANDSCAPES OF WESTERN OREGON**

Jeffrey C. Miller

Department of Entomology, Oregon State University, Corvallis, OR 97331-2907, USA

Forests within the coniferous biome of western Oregon contain a flora that provides the basis for the biodiversity of Lepidoptera. The forest flora can be grouped into 3 major vegetation types: (1) conifers, (2) hardwood trees and shrubs, and (3) herbs and grasses. A comparison of the macrolepidopteran biodiversity of 11 forested ecosystems within Oregon showed that, in general, 230-405 species were found at a given site within a given year; conifers supported 9-13% of the macromoth species richness, hardwoods 46-50%, and the herb vegetation 18-22%. Overall, species of angiosperms supported 65-70% of the macromoth species within coniferous forests containing Douglas-fir, western hemlock and true firs as the dominant overstory species. Furthermore, the composition of macromoth assemblages was found to be strongly influenced by elevation, stand age, and forest management practices. Macromoths are further discussed relative to their use as benchmark measurements and environmental assessment.