

EDAPHIC SEPARATION IN HIGH RAINFALL,
'ŌHI'A (METROSIDEROS COLLINA) FOREST ECOSYSTEMS,
WINDWARD HAWAI'I*

Hulton B. Wood
Institute of Pacific Islands Forestry
U. S. Forest Service
Honolulu, Hawaii 96813

Many of the soils in the high rainfall, windward slopes of Mauna Loa and Mauna Kea have been given only cursory examination. Extensive soils data have been obtained from 40 sites under a variety of 'Ōhi'a forest habitats. Differentiation and grouping of these soils place them in about 10 soil subgroups within the Histosols and Inceptisols orders of Soil Taxonomy. Several of these soils have not been described or analyzed before and are considered "new" for Hawai'i. Within and between these defined soil subgroups are striking differences and similarities in water retention and release characteristics, organic constituents, nutrient status, and other elements such as aluminum and iron.