

SUMMARY

Morphological characteristics of soil profiles on forest stands of Serra da Estrela (Portugal) are described. These stands are found at different altitudes and their dominant trees are the *Pinus pinaster*, the *Pinus laricio*, the *Pseudotsuga* and the *Castanea sativa*.

The evergreens stands of *Pinus* and *Pseudotsuga* exhibit organic layers of fermentation + humification (F+H) very distinct from the L layer and from the horizon A. On the stand of *Castanea sativa* (mixed with *Quercus tozza* and *Fagus silvatica*), although with very high quantity of litter, however, the layer of fermentation humification is not so contrasting either with L or with A.

The micromorphological study indicates in general, a, very strong microstructure in every horizon and an agglomeratic fabric. Excrements of two distinct shapes are common. Charcoal is also common.

Organic cutans of iluviation were observed on the mineral grains of the soil B horizon on the *Pinus silvestris* stand (at the altitude of 1380 meters).