

Copper distribution in Mediterranean forest ecosystems Distribución del cobre en ecosistemas forestales de tipo Mediterraneo

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We have analyzed the distribution of copper concentrations, and the effects of anthropogenic inputs, in the components of two forest ecosystems using a comparative approach. Ecosystem components were defined using a process-functional conceptual model. Biotic components corresponded to the morphological structures of trees, the abiotic components to the soil horizons. We chose two areas that differed on the absence (reference ecosystem) and presence (perturbed ecosystem) of an anthropogenic copper source (the Ventanas-Maitencillo Refinery). Results show that the anthropogenic copper is mostly retained in the partially decomposed matter, and that the biotic components of the perturbed ecosystem show higher than normal copper concentrations. We discuss the controlling variables of the intrasystemic copper cycle in forest ecosystems.