HEAVY METALS HYPERACCUMULATING PLANTS

Summary

Hyperaccumulators are an interesting group of plants which manages to survive under extreme environmental conditions. They tolerate high concentrations of heavy metals in soils and accumulate them in aboveground tissues. Thereby, the accumulated amounts may reach levels which are highly toxic for other organisms. In this paper, I present a review of recent literature focusing on examples of species which accumulate various metals and metalloids. The respective species represent various taxonomic and morphological groups of plants orig-

inating from a variety of geographical locations. The criteria of hyperaccumulation (i.e. metal concentrations in aboveground organs, the efficiency of accumulation and translocation), as well as hypotheses about evolution of accumulation (elemental allelopathy, elemental defense) are discussed. Furthermore, I summarize the effects of hyperaccumulators' presence on ecosystems based on results of a small existing set of ecological studies.