The chlorophyll biosynthesis of yew *(Taxus baccata* L.)

Skribanek Anna

Department of Plant Sciences, University of West-Hungary, Szombathely, Hungary

Chlorophyll biosynthesis are light dependent processes in angiosperms. These processes have been mostly studied in the leaves of angiosperm plants, much less data are available about plastid differentiation in non-leaf organs or in gymnosperms. Unlike angiosperms, most gymnosperms are able to synthesize chlorophyll in the dark and can this way not become etiolated. While the germination of the seedlings of some species require the presence of light (e.g.: *Pinus jeffreyi* L., *Pinus sylvestris* L., Schoefs és Franck 1998), the chlorophyll synthesis of adult plants usually proceeds in the absence of light as well. In this work, the greening of the leaves and stem of dark-forced yew *(Taxus baccata* L.) were analyzed and compared with other gymnosperm and with angiosperm species and with light-grown yew shoots. Small differences were observed in the pigment content and plastid development of dark-forced stems and leaves. Our results indicated that the dark-forced organs of this plant are able to synthesize Chl in the dark, but functional chloroplasts do not differentiate during dark-growth or after relatively long periods of greening. The data about chlorophyll biosynthesis of yew outline that the light-independent chlorophyll biosynthesis present in gymnosperms has a complex regulation.