

# Anita Greiter

*[English]*

## **Veränderung der Waldnutzung im Einzugsgebiet des Weidlingbachs (Wienerwald)**

**Wien, Sommersemester 2008**

The area investigated for this diploma thesis is the catchment area of the river Weidlingbach. This area is part of the Wienerwald, a large forest in the northeastern part of Austria. Due to its being close to the cities of Vienna and Klosterneuburg this part is important not only because of forestry but also for recreational purposes. It is also part of the new biosphere reserve Wienerwald and the Natura 2000 site Wienerwald-Thermenregion and so nature conservation plays a crucial role there.

The issue of this paper is to investigate whether forestry has changed between 1956 and 2000 and how these changes are expressed. The plant communities existing at the moment were also of interest to see if human use has any influence on the species composition. The intention was also finding answers with cheap and efficient methods.

To answer the first question, remote sensing methods were used. Aerial photographs were interpreted and polygons of different forestry wood classes were digitized. For the investigation of plant communities, stratified samples were calculated and for each sampling site the plant community was identified using a dichotomous key. The resulting data have been related to geological data as well as information about altitude and aspect.

Both methods showed good results and particularly the dichotomous key used for the identification of the plant communities saved a lot of time.

The forestry in the catchment area of the river Weidlingbach has not changed very much during the last 50 years. Noticeable is the change in the woodless parts. Here the agricultural used area has decreased while settlements have increased. The plant community of almost every sampling site could be identified with the exception of immature stands. Some hornbeam and oak communities can be considered as having replaced by historic forestry practices.