## Friedrich S., Waloch P. The Tywa River valley – an important site of the Western Pomerania nature (NW Poland)

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The River Tywa has its source near Trzcińsko-Zdrój and is the right tributary of the eastern branch of the Odra River – the Regalica. The area of investigations included the part of the River Tywa valley between Wirówek and Żórawki near Gryfino. This area stands out uncommon natural advantages like numerous rare and protected plant species, well developed plant associations, many old and imposing trees, scenic landscape of "the mountain valley", clear water and the rapid current of the river. Investigated part of the Tywa River valley is rather flat at the beginning but near Szczawno and Żórawki the valley looks like a gorge (Fig. 1).

Within the research area 241 species of vascular plants were found. Among them predominating group of species were indigenous taxa of spontaneophytes (over 90%). According to Raunkiaer's life forms predominated hemicryptophytes (46.7%). In the flora of the research area 28 species are protected by law, threatened, and rare in Poland or in the Western Pomerania (Tab. 1). Each of these species has a few sites and their rich populations seem to be safe. The most valuable plant species are: Cephalanthera damasonium, Neottia nidus-avis, Corydalis intermedia, Actaea spicata, Viola mirabilis.

Within the surveyed part of the River Tywa valley dominate forest associations occurring in zonal arrangement, among them fertile deciduous forests from *Querco-Fagetea* class. These forests are probably of natural origin. They stand out by significant participation of old forest indicator species as well as the conformity of a real vegetation to the potential one. Over 50% of the investigated area constitute protected natural habitats of the Natura 2000 network, like: beech forests *Luzulo-Fagetum* and *Galio-Fagetum*, oak-hornbeam forests *Galio-Carpinetum*, alluvial forests *Alnion incanae*, hydrophilous tall herb communities by the river-side *Convolvulion*.

These advantages make described area extraordinarily interesting and important to the Western Pomerania nature. Described part of the valley was proposed to protection as the Natura 2000 Special Area of Conservation called the "Dolina Tywy i Dziczy Las" (code pltmp 215, the

"Shadow list") and beside that as the "Jar Tywy" floristic-forest reserve (Fig. 1). The whole River Tywa valley was proposed to protection as the Area of Protected Landscape.