Selection of the TERMERD study sites

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For selecting our study sites we used the National Forest Stand Data Base operated by the Hungarian State Forest Service. Based on data on tree species and site conditions, we created 3 groups of the roughly 300000 forest subcompartments: *semi-natural*, *transitional*, and *plantations*. According to our experience, within group variation of naturalness is different in the three groups, hence we decided to use different sampling intensity (weight). Since the area occupied by these major groups within Hungary (and within forest regions) is known, by using relative area and the weights reflecting assumed variation, our selected sites can be regarded as a representative sample of all Hungarian forest subcompartments (Table 1). Weights were estimated by considering the number and geographic distribution of forest communities within the major groups.

Major groups	Area (Thousand ha)	Relative Share	Weight	Number of selected subcompartments
Semi-natural forest	700	0.38	6	1950
Transitional forest	350	0.19	4	660
Plantations	800	0.43	1	390
Sum	*1.850*	*1.00*		*3000*

Table 1. Relative share of the 3 major groups of forests, the applied sampling weights based on within-group variation, and the number of selected forest subcompartments.

Subcompartments representing the semi-natural and the transitional groups were selected by a stratified random sampling from the National Forest Stand Data Base. Strata were defined by forest regions and forest community groups. Two other criteria were set: 1) Size of subcompartments should be between 3 and 10 hectares. 2) Empty felling sites should not be included in the sample.

Sample size for plantation types was defined by their relative area and by a multiplication factor based on heterogeneity (Table 2). Subcompartments were not selected in advance, but each fieldworker had to select them while doing the fieldwork. To ensure proper representation of different developmental stages, we defined three age classes as follows: *young* = thicket stage until the last cleaning; *middle-aged* = sapling and pole stages thinning; *old* = mature stand in felling age. Fieldworkers were instructed on the necessary number of subcompartments to be sampled per plantation types and age class in each forest region. Forest management plan data were collected afterwards for the selected subcompartments.

Plantation type	Relative area	Multiplication factor	Number of selected subcompartments
Robinia plantations	0.436	0,75	126
Plantations of hybrid Poplars	0.160	1,00	62
Coniferous plantations	0.311	1,40	165
Other plantations	0.093	1,00	36
Sum	*1.000*		*389*

Table 2. Relative area of main plantation types in Hungary, their multiplication factor for sampling, and number of selected subcompartments.