

Sanasilva Inventory

Details of Survey



WSL Forest Monitoring project

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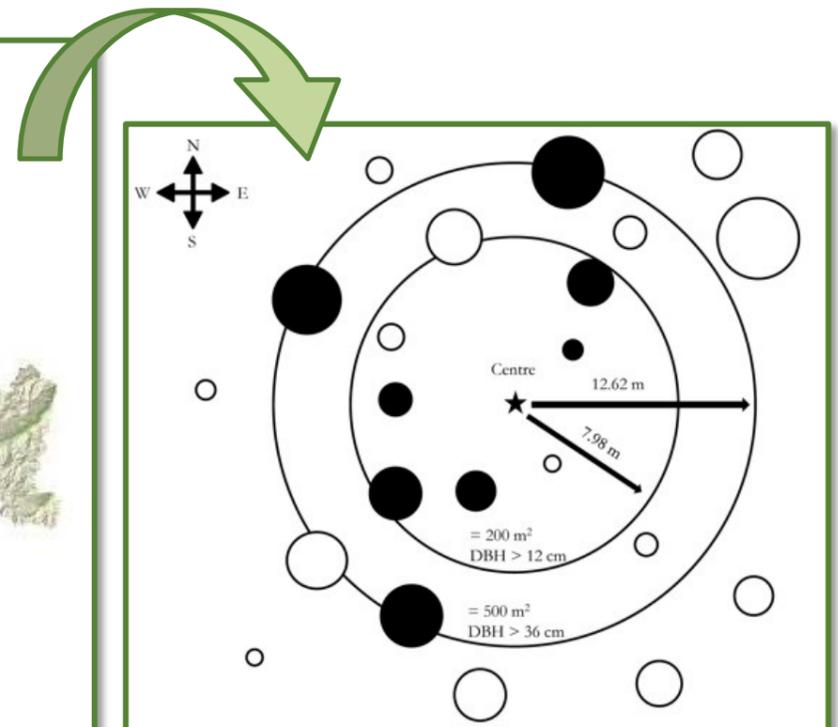
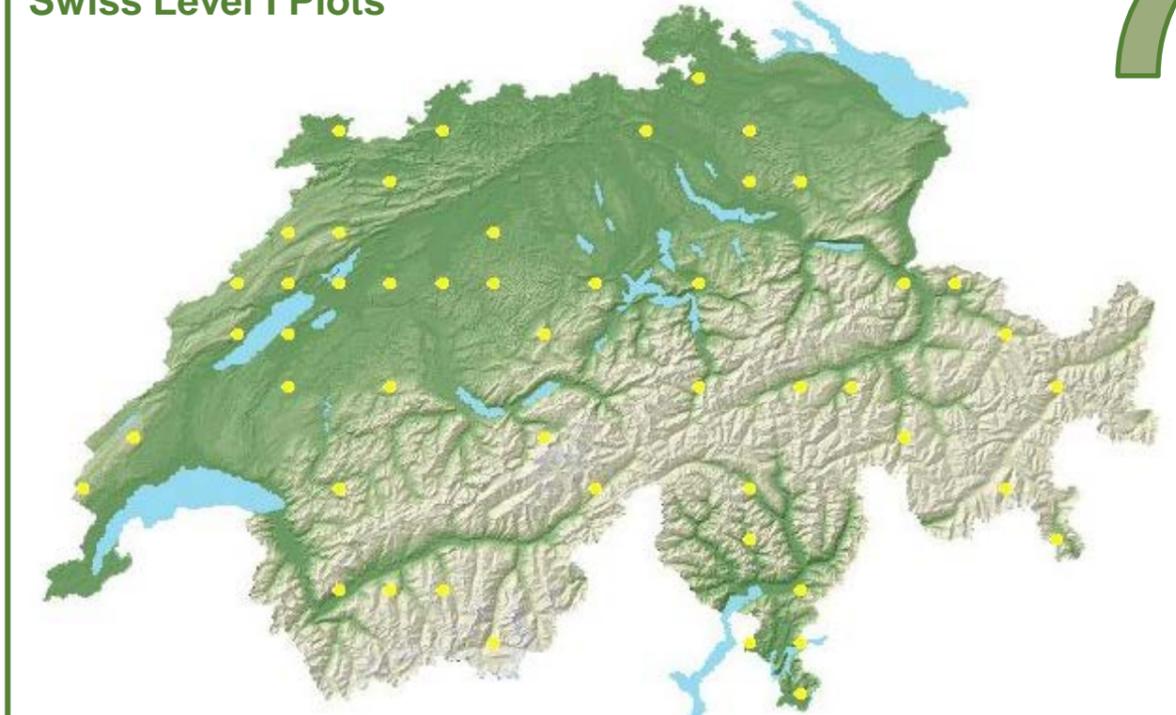
The Sanasilva Inventory has been carried out in its current form since 1985. Its aim is to monitor the health of the Swiss forest using crown and tree parameters as indicators for forest condition. In addition, further central parameters crucial for the function and performance of the ecosystem are monitored.



Methods:

Approximately 50 plots lie within the systematic subnetwork of the Swiss National Forest Inventory LFI. The inventory consisted of a 4 x 4 km (8'000 trees, until 1992), a 8 x 8 km (4'000 trees, 1983-1997) and a 16 x 16 km (1'100 trees, since 1998) systematic grid of the pan-European ICP Forests Level I network. Each plot consists of two circles around an identical center. The outer circle has a radius of 12.62 m (500 m²) and the inner circle has a radius of 7.98 m (200 m²). All trees with a diameter at breast height of at least 12 cm in the inner circle and with a minimum breast height diameter of 36 cm in the outer circle are being assessed annually. An identical satellite plot has been established 30 m due North of each plot. The field assessment is carried out in July and August.

Swiss Level I Plots



Main parameters being assessed:

Defoliation assessed as:	<ul style="list-style-type: none"> ❖ Percentage of defoliation of a tree in comparison to a reference tree of same species and age growing at the same site with maximum foliage ❖ the percentage of this defoliation that cannot be attributed to a known cause ❖ the part of tree crown with above average defoliation ❖ the percentage of defoliated branches and twigs and their location in the tree crown.
Discoloration recorded as:	<ul style="list-style-type: none"> ❖ the distance of the average tree crown color from a reference crown color for this species (assessed in hue, value and chroma using <i>Munsell color charts for plants</i>) ❖ the percentage and the location of up to two colors different to this reference color
Increment defined as:	the change of tree size variables between two or more assessment periods (i.e. diameter at breast height, tree height, tree crown length, average crown width).
Further parameters:	
Identified causes of defoliation	Abiotic factors such as frost and storm damage or biotic factors such as insect and fungal damage
Occurrence of epiphytes, mistletoe and climbers in the crown	Number and species in defined crown areas and partially at the stem