

GENERAL INFORMATION

author(s)	Lust N
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MATERIALS & METHODS

study area	3c
time period	
goal	<ul style="list-style-type: none">- How did the group grow and how is its present structure?- Are dominant, co-dominant, and suppressed trees differentiated?- What are the characteristics of the crown?- Are the different tree characteristics correlated?
set-up	5 tree cells: central tree + 6 surrounding trees
data collection	length of light/shade crown, crown radius in 4 cardinal wind directions
remarks	Complete soil preparation autumn 1968, natural regeneration in 1969, transplanted in a 2 m x 2 m triangular pattern in 1971 (425 trees), 22 % mortality by 1982 (330 trees) Basic characteristics of the stand (diameter, height, different layers, basal area)

RESULTS

The crown length is 48 % of the total tree height, which indicates that natural pruning of black alder starts early. No clear differences for the ratio shade/light crown between the different social classes of trees. The crown diameter is largest for the dominant trees. Canopy closure occurs after ca. 10 years. The crowns are rather asymmetric. The crown area and crown volume vary between trees and is higher for the dominant trees. Overall, the trees are relatively slender, with relatively small crowns.

Black alder acts as a light-demanding tree species. Because of the early natural pruning, they can be planted at considerable distances. Treatment of planted thickets might be essential to promote the growth of the future dominant trees.