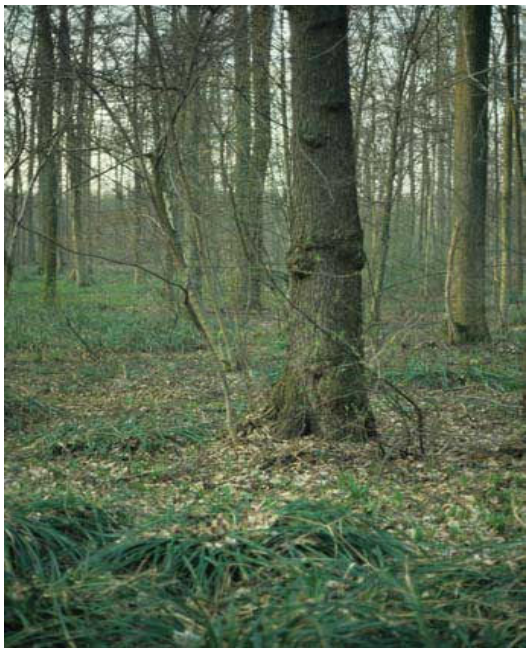
2 Swamp- and Wet Forests

Forests with different base-rich soils with temporary or permanent high ground- or leakage water, no surface flooding, occasionally flooded via ground water

2.1 Black Alder-Ash-Swamp Forest

Synonym: Birdcherry-Alder-Ash Forest

The black alder-ash-swamp forests summarise forest communities of wet sites with year-round high groundwater, occasionally flooded by rising groundwater in mineral wet soils. The nutrient supply is not as good as in riparian zones due to the fact that no sedimentation takes place (swamp forest!). Most sites experience slow groundwater percolation



Schutter-Niederung at Lahr,
Landkreis Offenburg, February 1994

Site characteristics:

Altitude:	submontane to montane (350 m to 900 m AMSL)
Soil reaction:	moderately acidic to alkaline, ± base-rich
Nutrient value:	mesotrophic to eutrophic
Moist balance:	moist to periodically wet (wet seepage), temporarily flooded
Substrate, soil type:	humic to mucky, sandy to loamy flood-plain soils

Predominate tree species:	**Further tree species:**	**Shrubs:**	**Herbs:**
Black Alder (wetter, poorer) Ash (dryer, richer)	Sycamore Maple Spruce	Birdcherry	Lesser Pond Sedge Hairy Chervil Northern Wolfs Bane

Plant sociology:

Class: Querce-Fagetea
Order: Fagetalia sylvaticae
Alliance: Alno-Ulmion
Association: Pruno-Fraxinetum Oberdorfer 1953 (only mountain form!)

Bordering communities:

Moist oak-hornbeam forests, at mucky sites black alder- fenwoods fragments, in connection with streams hornbeam-black alder-forest.

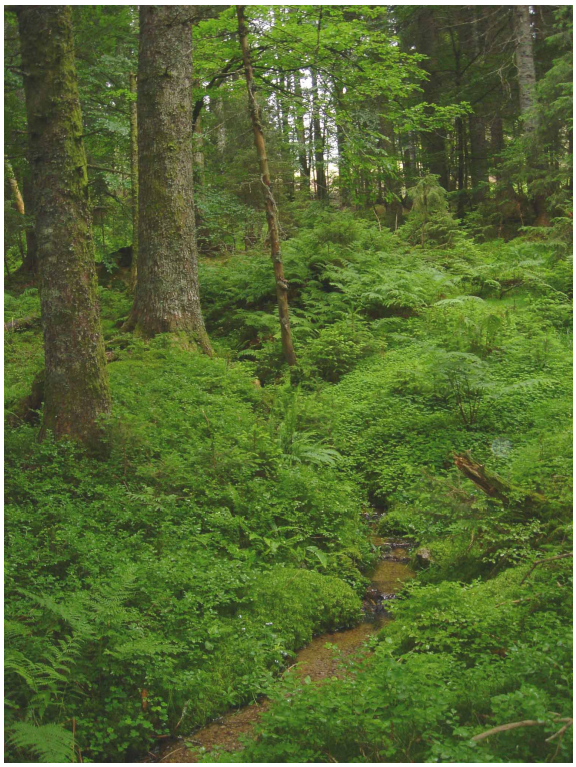
Degree of endangerment:

after RIECKEN et al. 1994 troughout Germany: endangered to vulnerable (level 2-3)

0 extinct
1 critically endangered
2 endangered
3 vulnerable

2.2 Spruce-Swamp Forest

The spruce-swamp forest occurs in the upper reaches of the Black Forest in slightly sloping areas with delayed water discharge. The soil water is relatively oxygen- and nutrient-rich compared to the spruce forests on swamp borders. It is a special form of spruce forest on swamp borders which occurs between soil acidic swamps and the swamp forests of fast running streams in upper reaches. It is especially found in basins and dells or on the borders of swamps. Cool-oceanic climate with high precipitation and high humidity are important site factors.



Schwinbach, Rural district Waldshut
south-eastern Feldberg-area, June 2007

Site characteristics:

Altitude:	above (600) 900 m AMSL
Soil reaction:	acidic
Nutrient value:	oligotrophic to mesotrophic
Moist balance:	spring percolated to waterlogged, +/- intense delayed discharge
Substrate, soil type:	swampy to mucky sites

Predominate tree species:	**Further tree species:**	**Shrubs:**	**Herbs:**
Spruce	Silver Fir (Beech)	Rowan	Bilberry, Wavy Hairgrass Deer Fern mainly closed moss layer

Plant sociology:

Class: Vaccinio-Piceetea
Order: Piceetalia abietis
Alliance: Piceion abietis
Association: Bazzanio-Piceetum

Bordering communities:

High- and transitional moors, low moors, spruce forests at the border of swamps, depending on the site zonal forest communities such as wood-rush-silver fir forest, wood-rush- and woodruff-beech forest, maple-beech forest occur.

Degree of endangerment:

after RIECKEN et al. 1994 troughout Germany: endangered (level 2)

0 extinct
1 critically endangered
2 endangered
3 vulnerable