

Limiting Factors in Forests

Codes:

++	Very limiting
+	Limiting
-	Not limiting
<i>n.a.</i>	Not applicable
0	No data found

Type of evidence:

C	Comparison
E	Experiment
M	Modeling
L	Long-term monitoring & reconstructions

Boreal forest

	Successional time scale/ Stand spatial scale	Geological time scale / Biome spatial scale
Light	+ M, L	<i>n.a.</i>
Temperature (soil)	++ C, E, M	++ C, M
N (through Temp)	+ C, E	++ C
P	- C, E	+ C
Fe	0	0
Disturbance regime	<i>n.a.</i>	++ C, M
Water (excess)	+ C, M	+ C

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Temperate forest

	Successional time scale / Stand spatial scale	Geological time scale / Biome spatial scale
Light	++ M, L	<i>n.a.</i>
Temperature	+ C, M	++ C, M
N	++ C, E, L	+ C, M
P	(+) C (in forests w/ high N subsidy)	++ C, M
Fe	0	0
Other (Ca, K)	(+) C, E, L (in forests w/ high N subsidy)	+ C, M
Water	+ L, C	++ C, M

Summary:

++ Light, N
+ Water, Temp, P, (Ca, K)
0 Fe

++ Temp, Water, P
+ N, Ca, K
- Light
0 Fe

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Tropical forest

	Successional time scale/ Stand spatial scale	Geological time scale/ Biome spatial scale
Light	++*	<i>n.a.</i>
Temperature	-	-
N	+ * C, E	+ * C
P	++ C, E, L	++ C, L
Fe	0	0
Other Nutrients	<i>n.a.</i>	<i>n.a.</i>
Water (excess)	+ * C	+ * C

* More pronounced in cloud/montane tropical forests

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SUMMARY

