

0.1 Introduction

or process due to lack of radiation under the canopy, past research studies show that it can vary between 10-50% of throughfall. In Table 1 an overview of past results on forest floor interception are presented.

isotope fractionation. Since transpiration does not fractionate water and interception evaporation does, this could be a way of separating the two evaporation processes.

Source	Forest floor type	Location	hoi [mm]	hoi [%]
?	Kentucky bluegrass (<i>Poa pratensis</i>)	?		56 ¹
?	Californian grass (<i>Avena</i> , <i>Stipa</i> , <i>Lolium</i> , <i>Bromus</i>)	USA (CA)		26 ¹
?	<i>Themeda</i> & <i>Cymbopogon</i>	South Africa		13 ¹
?	Poplar	USA (NC)		34
?	Scot's pine	USA (NY)		21
	Norway spruce	USA (NY)		16
	Beech	USA (NY)		16
	Oak	USA (NY)		11
?	<i>Shorea robusta</i> & <i>Mallotus philippensis</i>	India		11.8
	<i>Pinus roxburghii</i> & <i>Quercus glauca</i>	India		7.8
	<i>Pinus roxburghii</i>	India		9.6
	<i>Quercus leucotrichophora</i> & <i>Pinus roxburghii</i>	India		10.6
	<i>Quercus floribunda</i> & <i>Quercus leucotrichophora</i>	India		11.0
	<i>Quercus lanuginosa</i> & <i>Quercus floribunda</i>	India		11.3
? in ?	Blue stem <i>Andropogon gerardi</i> Vitman	USA (TX)		57-84
?	Pine (<i>Pinus sylvestris</i>)	United Kingdom	0.6-1.7	
	Beech (<i>Fagus sylvaticus</i>)	United Kingdom	0.9-2.8	
?	Bracken litter (<i>Pteridium aquilinum</i>)	United Kingdom	1.67	
?	Norway spruce	Scotland		18 ¹
	Sitka spruce	Scotland		16 ¹
?	Beech (<i>Asperulo-Fagetum</i>)	Germany	2.5-3.0	12-28
?	<i>Pinus radiata</i>	Australia	2.78	

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Source	Forest floor type	Location	<i>hoi</i> [mm]	<i>hoi</i> [%]
?	Eucalyptus	Australia	1.70	
?	Douglas fir	Netherlands		0.23 mm d ⁻¹
?	Pebble mulch (5-9cm)	China	0.281	11.5 ¹
?	Pebble mulch (2-6cm)	China	0.526	17.4 ¹
?	<i>Cryptomeria japonica</i>	Japan	0.27-1.72	
?	<i>Lithocarpus edulis</i>	Japan	0.67-3.05	
?	Grass (<i>Aristida divaricata</i>)	Mexico	2.5	
	Woodchips (<i>Pinus</i>)	Mexico	8	
	Poplar leaves (<i>Populus nigra</i>)	Mexico	2.3	
?	Mosses & grasses	Netherlands	3-15 ²	52 ¹
?	Beech (<i>Fagus sylvatica</i>)	Luxembourg	1.0-2.8	10-35 ¹

Table 1: Forest floor interception values in literature, with the water storage capacity *hoi* and the interception evaporation *hoi* as percentage of net precipitation (i.e., throughfall).

¹percentage of gross precipitation instead of net precipitation

²also includes soil moisture storage

A remarkable difference between canopy and forest floor interception is the relatively small interception storage capacity of the forest floor. On the other hand, the canopy has a larger evaporative potential compared to forest floor (?). The higher evaporative potential is caused by more turbulent wind fluxes at the canopy level and more available radiation.

Another important difference is the large seasonal influence on canopy interception and the rather constant considered.