

## Supplementary Material

**Tab. S1** - Litterfall fractions classification according to the authors consulted.

Reference	Litterfall fractions	Miscellanea description
Blanco et al. 2008	Needles	
	Other pine material	Branches, cones, bark, reproductive organs
	Miscellaneous	Materials other than pine
Espinosa et al. 2018	Needles	
	Branches	
	Bark	
	Cones	
	Seeds	
	Inflorescences	
	Lichens	
	Leaves of other species	
	Miscellaneous	Unclassified material
Finér 1996	Needles	
	Other litterfall fractions	
González-Arías et al. 1998	Needles	
	Flowers	
	Woody parts	
	Miscellaneous	Material from other species of tree
Gosz et al. 1972	Leaves (including needles)	
	Insect frass	
	Buds scales	
	Flowers	
	Fruits	
	Branches	
	Bark	
	Stems	
	Miscellanea	Fragments of leaf tissue which could not be identified to species
	Kim et al. 1996	Leaf
Bark		
Flowers		
Fruits and cones		
Woody (including twigs)		
Miscellaneous		Leaf needle or bark fragments, pollen, insect frass
Lado-Montserrat et al. 2016	Needles	
	Branch	
	Bark	
	Cone other organs	
	Miscellaneous	Other species than <i>Pinus halepensis</i>
Li et al. 2005	Branches	
	Leaves of different species	
	Minor leaf	
	Miscellanea	Petals, fruits, bryophytes, frass, detached epiphytes

Segura C, Fernández-Ondoño E, Jiménez MN, Navarro FB (2019).

**Carbon and nutrients contents in the miscellaneous fraction of litterfall under different thinning intensities in a semiarid *Pinus halepensis* afforestation**

iForest – Biogeosciences and Forestry – doi: [10.3832/ifor2907-012](https://doi.org/10.3832/ifor2907-012)

Reference	Litterfall fractions	Miscellanea description
Michopoulos et al. 2007	No litterfall fractions	
Navarro et al. 2013; Jiménez & Navarro 2016; Segura et al. 2017, according to Bernier et al. 2008.	Needles	
	Twigs	
	Woody material (bark and cones)	
	Miscellaneous	Seeds, bracts, pollen, buds, residual matter, frass from pest
Ouro et al. 2001	Needles	
	Abscised needles	
	Fruits	
	Twigs	
	Branches	
	Stem bark	
	Stem wood	
Portillo-Estrada et al. 2013	Needles	
	Twigs	
	Bark	
	Cones	
	The rest fraction	
Santa Regina & Tarazana 2001	Leaves	
	Branches	
	Fruits	
	Flowers	
	Others	Other plant material
Turner & Lambert 2011	Needles	
	Woody	
	Fine material	
Ukonmaanaho et al. 2008	Green and senescent Scots pine needles	
	Green and senescent Norway spruce needles	
	Remaining material (miscellaneous)	Branches,leaves, cones, bark, flowers, etc.
Zhou et al. 2014	Korean pine leaf	
	Non-Korean pine leaf	
	Korean pine woody (branches and bark)	
	Non-Korean pine woody	
	Miscellaneous	Flowers, sheaths, seeds, cones and feces, etc.

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**Fig. S1** - Total annual mean of carbon and nutrients ( $\text{kg ha}^{-1} \text{yr}^{-1}$ ) adding up inputs from needlefall and miscellaneous fraction (mean  $\pm$  standard deviation). Within a column in the stacked bars, the results on top (grey) are inputs from miscellaneous fraction and those on the bottom are from needlefall. (T75): 75% of basal area removed; (T60): 60% of basal area removed; (T48): 48% of basal area removed; (T0): no thinning.

