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Table 1 The effects of the presence of CWD in littoral zones on ecosystem functions

From: <u>Coarse woody debris in temperate littoral zones: implications for biodiversity,</u> food webs and lake management

Ecosystem function	Effects of the presence of CWD	
Climate regulation	Contribution to carbon sequestration (1, 2)	
Disturbance regulation	Sediment retention in the littoral zone (3, 4) Bank protection against erosion (3) Reduction in shear stress and ship-induced disturbances (5)	
Nutrient regulation	Cross-boundary subsidy and a large pool of nutrients (1, 2, 13) Contribution to carbon sequestration (1, 2, 13) Contribution to the productivity of algae (6, 7, 8), invertebrates (7, 9) and fish (10, 11, 12)	
Supporting habitat	Habitat for terrestrial plants and animals (13); algae (7, 8, 14, 15); invertebrates (7, 9, 14, 15, 16, 21, 23); fish (10, 11, 12, 17-25) Spawning habitat (11, 23, 25) Transport of species by floating CWD across littoral zones (13)	
Food	Decaying wood as a source of organic matter for detritivores (4) Consumption of epixylic algae by invertebrates (26) Consumption of epixylic bacteria and fungi by invertebrates (26) Invertebrates colonizing CWD as a food base for fish (9, 11,18, 27)	
Genetic resources	Sites with high densities of CWD increase diversity of invertebrates and fish (21) Greater diversity of fish among more complex branched CWD (19) High diversity of invertebrates on decayed wood (7, 14) Domination of xylophagous taxa on decayed wood (14)	
Provision of shelters	Refuge for invertebrates (9) and fish (11, 18, 20, 22, 23)	

Ecosystem function	Effects of the presence of CWD	
(1) Guyette et al. (2002) (2) Gennaretti et al. (2014) (3) Jennings et al. (2003) (4) Francis et al. (2007) (5) Gaeta et al. (2014) (6) Vadeboncoeur & Lodge (2000) (7) Smokorowski et al. (2006) (8) Vadeboncoeur et al. (2006) (9) Czarnecka et al. (2014)* (10) Schindler et al. (2000)	(11) Sass et al. (2006a) (12) Gaeta et al. (2014) (13) Guyette & Cole (1999) (14) Bowen et al. (1998) (15) Glaz et al. (2009) (16) France (1997) (17) Barwick et al. (2004) (18) Lewin et al. (2004) (19) Newbrey et al. (2005) (20) Sass et al. (2006b)	(21) Schneider & Winemiller (2008) (22) Biro et al. (2008) (23) Helmus & Sass (2008) (24) Ahrenstorff et al. (2009) (25) Lawson et al. (2011) (26) Eggert & Wallace (2007)* (27) Sass et al. (2012) (*) experimental study

Experimental results are indicated by asterisk

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