

**Table S1. Studies reviewed and key parameters collected.**

Source	Location	Sensor type	Sensor name	R <sup>2</sup>	Forest type
[1]	Hawaii, USA (Hawaii Experimental Tropical Forest)	DRL	Custom Optech 3100EA	0.78	Tropical Rainforest
[2]	Hawaii, USA (Hawaii Active Volcanoes Observatory)	DRL	Custom Optech 3100EA	0.92	Evergreen (Firetree, 'ohi'a lehua)
[3]	Peru (Peruvian Amazon)	DRL	Custom Optech 3100EA	0.85	Tropical wet Forest
[4]	Madagascar (northern and southern)	DRL	Custom Optech 3100EA	0.88	Evergreen humid tropical forest, deciduous "dry" forests/shrubland
[5]	Colombian Amazon (Southern Colombia)	DRL	Custom Optech 3100EA	0.91	Tropical rainforest
[6]	Uganda, Tanzania, the Democratic Republic of Congo, Brazil, Ecuador, Colombia, Bolivia, Vietnam, Indonesia	GLAS	GLAS	0.83	Tropical forest
[7]	Costa Rica (La Selva Biological Station)	DRL	FLI-MAP	0.90	Tropical wet Forest
[8]	Antimary State Forest, Acre State, Western Brazilian Amazon	DRL	Optech ALTM 3100EA	0.72	Dense to open tropical forests, with frequent lianas, palm trees, bamboos
[9]	Costa Rica (La Selva Biological Station)	FRL	LVIS	0.93	Tropical wet Forest
[10]	Panama (Barro Colorado Island)	FRL	LVIS	0.66	Lowland tropical moist forest
[10]	Costa Rica (La Selva Biological Station)	FRL	LVIS	0.89	Tropical wet Forest
[11]	Santarem, Brazil (Tapajos National Forest)	GLAS	GLAS	0.73	Tropical broadleaf
[12]	Injune, Australia (southeast central Queensland)	DRL	Optech ALTM 1020	0.90	White cypress pine, Silver-leaved ironbark, Smooth-barked apple, Brigalow, Poplar box
[13]	Panama (Barro Colorado Island)	DRL	Custom Optech 3100EA	0.85	Tropical moist forest

[14]	Indonesia (Central Kalimantan)	LMS	Riegl LMS-Q560 i	0.75	Tropical peat swamp
[15]	Brunei Darussalam (Ulu Temburong National Park)	-	-	0.92	Tropical rain forest
[16]	Ghana (southwest)	DRL	Optech Ltd. ALTM GEMINI	0.60-0.72	Moist evergreen and moist semi-deciduous forest
[17]	French Guiana	GLAS	ICESat	0.54	Tropical forest
[18])	Barro Colorado Island (Panama Canal)	DRL	Optech ALTM 3100	0.68	Tropical rain forest
[19]	Ecuador (Yasuní National Park)	DRL	Optech ALTM Gemini	0.94	Lowland Amazonian forest

DRL = Aircraft discrete return Lidar; GLAS = Geoscience Laser Altimetry System; FRL= Full return Lidar; LMS= laser measurement systems.

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