Additional file 1: Additional figures and tables

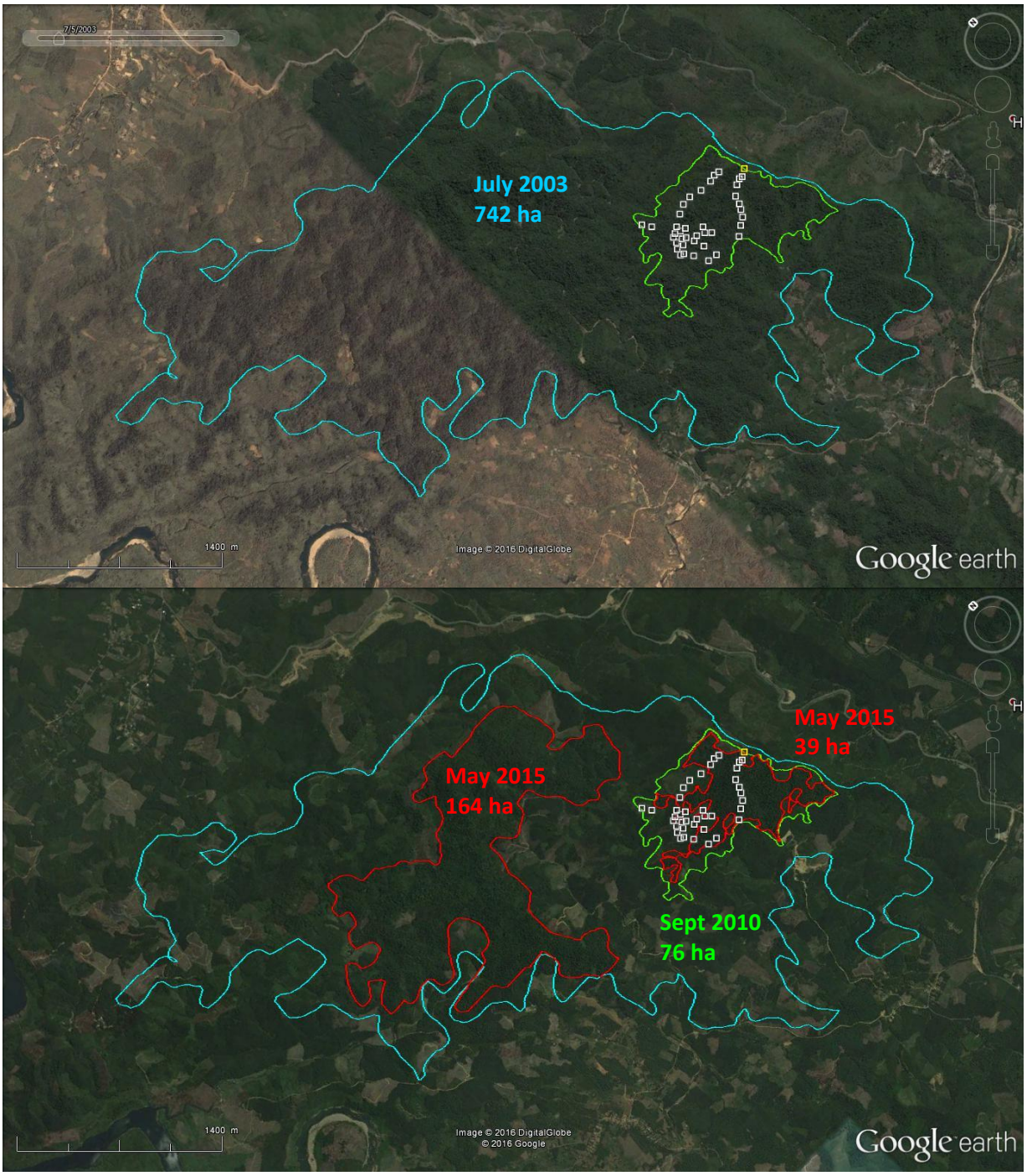

Fig. S1 Maps showing the reduction of the initial lowland forest from about 742 hectares in July 2003 (blue outline) to two smaller forest fragments totaling 203 hectares in May 2015 (red outlines). The smaller fragment (HPC-forest) was surveyed in July-August 2010 with the approximate extension shown in green color outline.

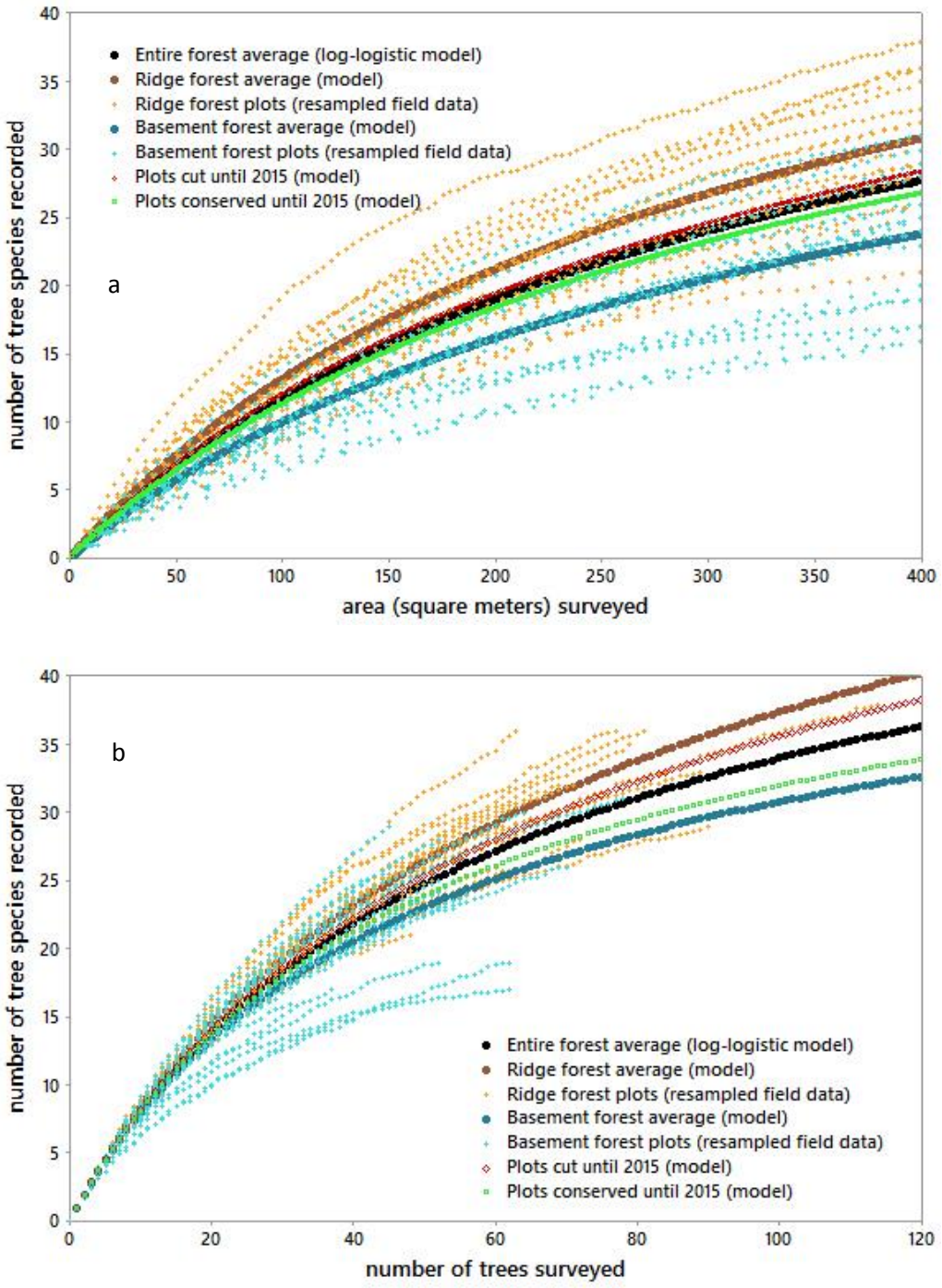

Fig. S2 Plot-level species rarefaction curves in terms of **a)** plot area and **b)** tree individuals recorded on plots. The true data (small dots, averages of 20 resamplings) are shown for plots in R- and B-forest. Fitted log-logistic models (large-dotted lines) are shown for the entire forest, for R- and B-forest, and for plots destroyed or conserved in between 2010-2015.

Table S1 Tree species association on plots within the different forest types (main types R and B, and sub-types). The species ‘importance value index rank’ (*IVIR*, 1-172) is listed in the left column. The species weight on the plots (400 m^2) is indicated by a normalized biomass index (*NBI*), scaled between a minimum of 1 and a maximum of 100 (color scale shown in the upper row). The inserted numbers in yellow indicate the numbers of seedlings found on the respective plots (on sub-plots, area of 20 m^2).

Biomass weight index		1-10			10-20		20-30							30-40				40-50				50-60		60-70						70-80	80-90								90-100
main forest types		Hillside Ridge Forest (R)																				Hill Basement Forest (B)																	
1st sub-type		type 1 (~high elevation)												type 2 (~low elevation)								type 1 (~moist)									type 2 (~wet)								
2nd sub-type		top			base		east							west				north				slope		moist						n	base								c
Species ↓	IVIR ↓ / plot n°	1	2	3	1	2	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	1	2	1	2	3	4	5	6	7	1	1	2	3	4	5	6	7	8	9	1
Eu *Brevnia fruticosa*	93																																								
Ju *Engelhardtia spicata*	79																																								
Hy *Cratoxylon pruniflorum*	51	1	1				1																																		
Rt *Melicope pteleifolia*	39	4	1	6		4	2	2	1	1	1	3	6		2							2	1	1	1				1				1								
Il *Illicium griffithii*	59	2	3	2																			1																		
Cl *Garcinia* sp.	62																																								
Sy *Styrax argentifolius*	50																			1																					
Mo *Artocarpus styracifolius*	71																																								
La *Cryptocarya concinna*	56																																								
Mo *Ficus vasculosa*	76																																								
So *Madhuca pasquieri*	68																																								
Rt *Acronychia pedunculata*	60				1	2		1																																	
La *Cinnamomum burmannii*	61																																								
Cl *Calophyllum* sp.	102																																								
Th *Eurya ciliata*	80																																								
Th *Eurya japonica*	87																																								
Po *Xanthophyllum* sp.	53																																								
La *Litsea lacilimba*	64																																								
Sa *Nephelium* sp.	45																																								
Ap *Wrightia annamensis*	69																																								
So *Palaquium* sp.	57		2																																						
Mo *Morus alba*	35				1																																				
Eu *Sapium sebipherum*	44											1																		2											
Ve *Vitex trifoliata*	33					1				2									1		1														1						
My *Horsfieldia amygdalina*	31																																								
Eu *Endospermum chinense*	26					3									4																										
Mr *Syzygium syzygioides*	13		2	1		2	4	4	1	2	3		1									7						1				2									
Fg *Castanopsis* sp.	12	2	2						1		1										1									1											
Mr *Syzygium* sp.	24						2				1			1		1																									
Bu *Canarium album*	15						2											1		1	2											3	2	1							1
La *Cinnamomum obtusifolium*	21						2	2	1		2			1	1	1		1			2		1									1							1		
Si *Eurycoma longifolia*	29	2	1	4			3	2	1	1	5	4									1	1																			
Eu *Croton tiglium*	37	3	1	3		2	6		1	2	1	1	1		3	2	1					4	2		4	3	2	1							1	1	1				
Sr *Tarrietia javanica*	46					1			1		1		1		1	1	1							2													4			1	
Aa *Schefflera violea*	38														1									1		2	1									2					
Ao *Disepalum plagioneurum*	49																																								
Bu *Canarium bengalensis*	52						1																																		
Ar *Calamus crispus*	48						1		1			1		1					1				1		1		1														
Ar *Daemonorops jenkinsiana*	40				1										1			1		1						1							1			1			1		
Ca *Sindora tonkinensis*	54																1																								
My *Knema globularia*	16				1	2				1											2	1	2															1			
An *Melanorrhoea laccifera*	17					2			3	1				1			1	1		1	4	2	5	2		1	8	2	1		1	3		1		1					
Le *Barrington. macrostachya*	10		1			2						1											2	1		1															3
Ar *Licuala centralis*	9		2	1	3	1	2	2	2	2	2		1	1		2	1	1	1		1	2		1			1	1	1		1					1					1
Cl *Garcinia cochinchinensis*	11	7	2	17	3		4	2	1		3	3	1	1		2		3	1		4	5	1	1	10		2			1	2	3	1	2		3	1		1		3
Ru *Morinda citrifolia*	6														1			1					2																		
Ul *Gironniera subaequalis*	1			1		1	8	2	2	2	1	4	5	1	1		1			1		1		1	2	1	4		1		1									1	
Ar *Licuala* sp.	3												1		1				1																	1					
So *Palaquium annamense*	5			2	1					1								1	1											1											1
Mo *Artocarpus rigidus*	2	3		4	2		1	1	2			4	1	11	3		32		17	1	1	1	5	2	1	1		2	8	10	4	4	1	18				5		3	
My *Knema pierrei*	7				1	1	1			2	2					1	4	1	1		1		2		1															1	2
Sr *Scaphium macropodum*	18						1	1		1	1				11	1				5						2							1	3		3					1
Bu *Garuga pinnata*	8																																								
Fg *Lithoc. amygdalifolius*	14																																								
Eu *Antidesma hainanense*	20					3	1								1		4						7	2					2			2		3	2		1	1	4		2
Ar *Caryota sympetala*	4														1			1						1			1			1		1		1	1					1	1
Aa *Schefflera octophylla*	22	1		1			1			1					4					1	1		1		1	1						2									1
La *Litsea glutinosa*	19					1						1	1				1																			5					
Mo *Ficus* sp.	30																														1	3	1								
El *Elaeocarpus dubius*	63											1																								1	1				
Sa *Amesiodendron chinense*	43																																								
Rt *Pometia* sp.	32		2			3		14	6	4	8	1			3	1	2					8	1	1	1		1					2	3	1			3		1	1	
Mr *Syzygium jambos*	28																																								
Rt *Pometia pinnata*	23			3	2	3		1		1	2				1	2	4	1	2		5			3		4		3	1		4	1		7	2	4	1		2	1	2
Eu *Glochidion eriocarpum*	27			1	2			3		4		1			5		1					5		3		1	7	1	3		2	2			2		1			1	
Di *Dillenia scabrella*	25				2			3		2		5					2			1	3	1	1	7	4		3		1			1			1						
Ar *Plectocomia elongata*	36	1				1	1		1				1				1				1						1								1						
Ic *Gonocaryum maclurei*	41	2		1		1		1				3												1	4																
El *Elaeocarpus griffithii*	42														2												2														
So *Mimusops elengi*	58																																								
Ao *Demos* sp.	55					1										1							2																	1	

Table S1 Continued.

Biomass weight index		1-10			10-20		20-30						30-40				40-50				50-60		60-70						70-80		80-90						90-100		
main forest types		Hillside Ridge Forest (R)																			Hill Basement Forest (B)																			
1st sub-type		type 1 (~high elevation)											type 2 (~low elevation)								type 1 (~moist)										type 2 (~wet)								
2nd sub-type		top			base		east						west				north				slope		moist						n		base								c
Species ↓ / IVIR ↓ / plot nº		1	2	3	1	2	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	1	2	1	2	3	4	5	6	7	1	1	2	3	4	5	6	7	8	9	1
Ru *Aidia oxyodonta*	67																																								
Le *Barringtonia* sp.	72																																								
Ar *Korthalsia laciniosa*	47				1								1							1	1								1									1			
Ar *Nenga banaensis*	34			1												1		1		1	1		1		1					1			1		1		1				1
El *Elaeocarpus apiculatus*	73									1																															
Ul *Gironniera* sp.	74																																								
Eu *Mallotus apelta*	66																																								
Ar *Rhapis excelsa*	111																		1	1								1													
Ar *Calamus walkeri*	65		1					1	1	1			1			1								1				1											1		
Ar *Calam. nambariensis*	171				1																		1							1						1					
Ar *Calamus dioicus*	170																													1	1		1		1						1
Ar *Calamus bousigonii*	70	1																							1								1							1	
Ar *Calamus rhabdocladus*	172						1														1																				
Ix *Ixonanthes reticulata*	113																																								
Fg *Lithocarpus farinulentus*	122																																								
Sp. A	143																																								
Ro *Prunus arborea*	146																																								
Mo *Ficus hispida*	153																																								
Sa *Nephelium chryseum*	95																																								
An *Mangifera minutifolia*	126																																								
Hy *Cratoxylon ligustrinum*	162																																								
Sp. F	136																																								
Fa *Ormosia balansae*	141																																								
Sp. E	147																																								
Fa *Ormosia henryi*	83																																								
Mo *Artocarpus* sp.	105																																								
Fg *Lithocarpus* sp.	104																																								
Eu *Bridelia* sp.	167																																								
La *Litsea verticillata*	94																																								
Me *Aglaia* sp.	108																																								
La *Litsea euosma*	155																																								
Eu *Croton* sp.	90																																								
La *Cryptocarya* sp.	119																																								
Sp. B	144																																								
Aa *Schefflera pauciflora*	129																																								
La *Litsea* sp.	114																																								
Eu *Sapium discolor*	75																																								
Mr *Syzygium zeylanicum*	143																																								
Ca *Sindora siamensis*	103																																								
Mo *Ficus glandulifera*	134																																								
Mi *Archidendron clypearia*	99									3			1		1				1																						
Sr *Sterculia lanceolata*	118			1																																					
Sp. D	130																																								
Th *Eurya nitida*	115																																								
La *Litsea pierrei*	110																																								
Dp *Hopea pierrei*	101																	1																							
Sp. H	169																																								
Eb *Diospyros apiculata*	97																																								
Sy *Styrax annamensis*	107																																								
Fa *Ormosia fordiana*	159																																								
Cl *Calophyll. dryobalanoides*	124																																								
Ru *Canthium dicoccum*	149																																								
La *Cinnamom. cambodianum*	121																																								
Ar *Plectocomia* sp.	88																																		1			1			
Sa *Mischocarpus fuscescens*	81																																								
St *Turpinia cochinchinensis*	92																																								
El *Elaeocarpus* sp.	84																																								
Sp. C	138																																								
Sa *Nephelium lappaceum*	132																																								
Dp *Hopea* sp.	106																														1										
Sr *Sterculia* sp.	109																																								
La *Machilus* sp.	98																																								
Ac *Saurauia tristyla*	127																				1																				
El *Elaeocarp. nitentifolius*	161																																								
Bu *Canarium* sp.	125																																								
Eu *Bridelia balansae*	135																																								
Eu *Glochidion zeylanicum*	163																																								
Eb *Diospyros eriantha*	96								2																				1									2			
Ca *Peltoph. tonkinensis*	150																																								
Eu *Microdesm. casearíaefolia*	166																																								
Sy *Styrax tonkinensis*	120																																								
Sr *Pterosp. heterophyllum*	86																																								

Table S1 Continued.

Biomass weight index		1-10			10-20		20-30							30-40				40-50				50-60		60-70					70-80		80-90						90-100			
main forest types		Hillside Ridge Forest (R)																				Hill Basement Forest (B)																			
1st sub-type		type 1 (~high elevation)												type 2 (~low elevation)								type 1 (~moist)									type 2 (~wet)									
2nd sub-type		top			base		east							west				north				slope		moist						n	base									c
Species ↓	IVIR ↓ / plot nº	1	2	3	1	2	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	1	2	1	2	3	4	5	6	7	1	1	2	3	4	5	6	7	8	9	1
La *Actinodaphne pilosa*	157																																								
Mi *Archidendron* sp.	139																																								
Ol *Harmandia mekongensis*	85																																								
Cl *Garcinia cowa*	128																																								
La *Cinnamomum cassia*	78												1																			1									
Mi *Pithecellobium lucidum*	77																													1											
Sr *Pterospermum argenteum*	160																																								
Eu *Croton roxburghii*	137																																								
Mo *Ficus trivia*	133																																								
La *Cinnamomum* sp.	91																																								
Al *Alangium ridley*	82																																								
Fg *Quercus* sp.	168																																								
Fa *Ormosia* sp.	151																																							9	
Sp. G	140																																								
Dp *Parashorea* sp.	117																																								
An *Semecarpus anacardiopsis*	131																																								
An *Rhus succedanea*	89																																								
La *Litsea sebifera*	100																																								
Sp. I	156																																								
Bu *Canarium tramdenum*	154																																								
Sp. J	152																																								
Sp. K	165																																								
Sp. L	116																																								
Al *Alangium kurzii*	158																																								
Ch *Parinari annamensis*	112																																								
La *Cinnamom. camphora*	123																																								
La *Actinodaphne* sp.	148																																								
Eu *Mallotus paniculatus*	145																																								
Aq *Ilex megistocarpa*	164																																								

Fig. S3-a Relative abundance of species in different biomass (eAGB) size categories, i.e. ‘seedlings’, ‘<10 kg’, and ‘10-100 kg’ on R- and B-forest types.

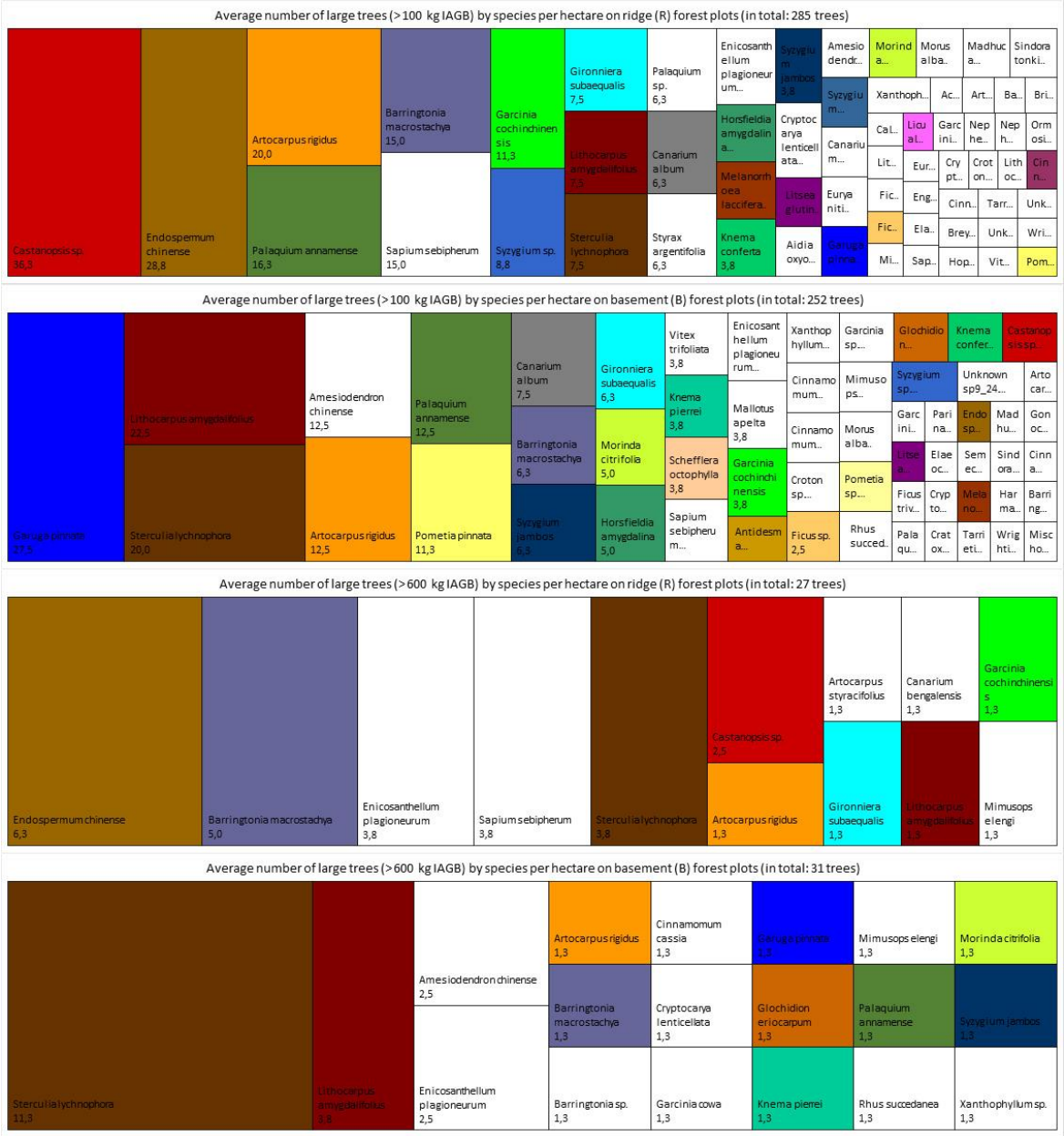

Fig. S3-b Relative abundance of species in different biomass (eAGB) size categories, i.e. >100 kg and >600 kg on R and B forest types.

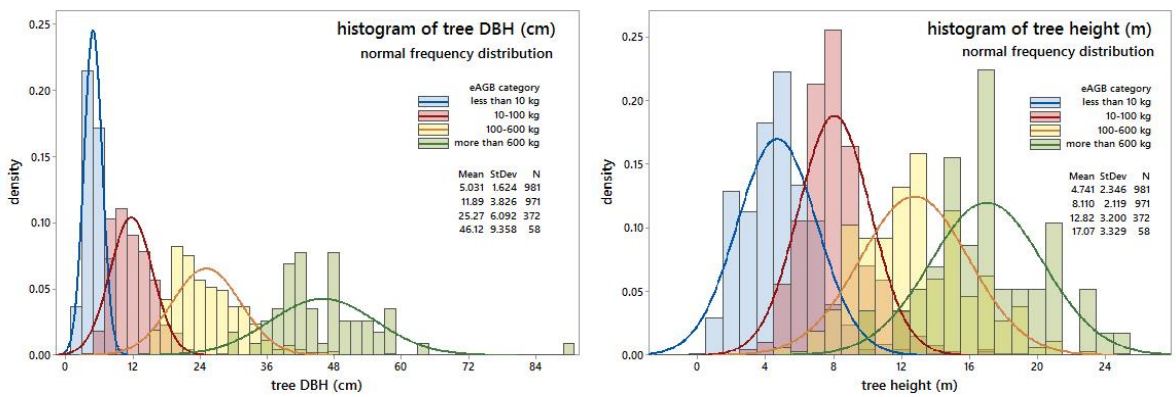

Fig. S4 The eAGB tree size categories in relation to frequency distributions of other tree size parameters such tree DBH (left panel) and tree height (right panel).