Supplementary Material

Fig. S1 - The location of our study sites, Yachang Township, Leye County, Baise City, Guangxi Zhuang Autonomous Region.
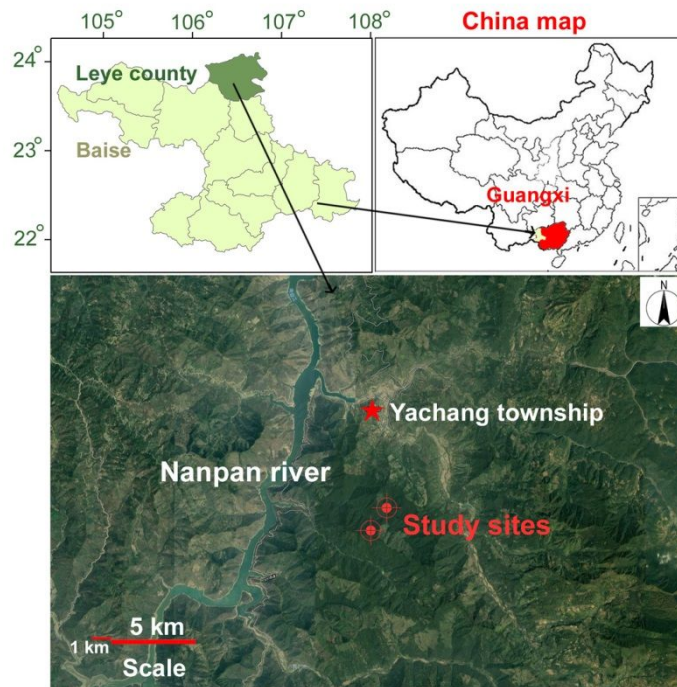
Fig. S2 - The secondary pine-oak forests subjected to clear-cutting 57 years ago currently displays two layers: the understory species mainly consists of evergreen broad-leaved shrubs, while the upstory mainly contains several deciduous broad-leaved species and *P. yunnanensis*.

Tab S1 - The parameters of main populations occurred in our sampled plots (the number of living trees ≥ 40) and their ecological characteristics.

Species	Nascency	Canopy	Seed dispersal model	Density (ha^{-1}) (living / death)		Mean dbh (cm)	
				plot 4	plot 5	plot 4	plot 5
P. yunnanensis	seedling	upstory	gravity + wind [c]	245 / 35	136 / 33	25.3	29.8
Q. variabilis	sprouting + seedling [a]	upstory +understory [b]	gravity	1625 / 93	1056 / 130	8.6	11.1
C. stellatum	seedling	understory	gravity	412 / 140	302 / 77	4.6	4.5
T. ciliata	seedling	understory	wind	99 / 0	192 / 0	2.8	2.9
A. kalkora	seedling	upstory	gravity	---	88 / 16	---	10.4
A. quinquegona	seedling	understory	gravity	---	133 / 0	---	4.6
V. bracteatum	seedling	understory	gravity	102 / 318	/ 202	3.3	---
P. emblica	seedling	understory	gravity	125 / 10	/ 11	4.2	---

Note: We only marked populations whose number was more than 40 in this table. Superscript letter a mean *Q. variabilis* had two ways of regeneration, b implied *Q. variabilis* occurred in both layers simultaneously, and c represented that the seed dispersal models of *P. yunnanensis* synthetically influenced by gravity and wind.