

Supplementary Materials:

Table S1 Stand characteristics of the experimental sites.

Site	Stand density (tree·hm ⁻²)	Mixed	Slope (°)	Aspect
PM	750		19	Northwest
PM + BS	733	7:3	23	Northwest
PM + MC	708	7:3	26	Northwest
PM + CJ	710	7:3	15	East
PM + CO	775	7:3	18	Southwest
PM + MM	750	7:3	27	Southwest

Notes: *Pinus massoniana* (PM), *Bretschneidera sinensis* (BS), *Manglietia chingii* (MC), *Cercidiphyllum japonicum* (CJ), *Camellia oleifera* (CO), and *Michelia maudiae* (MM).

Table S2. Effects of forest type on litter thickness and stock.

Stand type	Litter thickness (cm)		Litter stock (t·hm ⁻²)	
	OL	OF	OL	OF
PM	2.16 ± 0.24b	0.68 ± 0.18b	11.59 ± 2.57a	3.13 ± 0.75b
PM + BS	2.72 ± 0.24a	1.33 ± 0.18a	8.84 ± 1.14a	4.15 ± 0.62a
PM + MC	2.33 ± 0.39ab	1.27 ± 0.14a	9.44 ± 0.71a	5.16 ± 0.63a
PM + CJ	1.68 ± 0.15b	1.24 ± 0.17a	6.37 ± 1.16b	4.52 ± 0.61a
PM + CO	2.23 ± 0.51ab	1.63 ± 0.31a	6.31 ± 1.41b	3.85 ± 0.51a
PM + MM	3.14 ± 0.53a	1.61 ± 0.17a	6.51 ± 1.11b	3.54 ± 0.54a

Note: *Pinus massoniana* (PM), *Bretschneidera sinensis* (BS), *Manglietia chingii* (MC), *Cercidiphyllum japonicum* (CJ), *Camellia oleifera* (CO), and *Michelia maudiae* (MM). OF: semi-decomposed litter; OL: undecomposed litter. Different lowercase letters indicate significant differences among different forest types ($P < 0.05$).

Table S3. Effects of forest type on soil properties.

Soil depth (cm)	Stand type	SBD (g·cm ⁻³)	CP (%)	NCP (%)	TP (%)	MWD (mm)	GMD (mm)	D	SOC (g·kg ⁻¹)
0–20	PM	1.36 ± 0.04ab	44.98 ± 1.44cd	5.55 ± 0.63ab	50.53 ± 1.68cd	3.01 ± 0.25b	1.42 ± 0.30bc	2.73 ± 0.05a	18.80 ± 0.82c
	PM + BS	1.23 ± 0.03bc	49.57 ± 2.29bc	4.47 ± 0.53b	54.04 ± 2.22bc	2.10 ± 0.33c	0.78 ± 0.22c	2.80 ± 0.04a	22.72 ± 1.39c
	PM + MC	1.27 ± 0.03abc	49.34 ± 0.76bc	6.08 ± 0.75ab	55.08 ± 1.10bc	2.18 ± 0.16c	0.89 ± 0.08c	2.74 ± 0.01a	19.34 ± 0.49c
	PM + CJ	1.40 ± 0.05a	42.70 ± 1.91d	4.49 ± 0.54b	47.19 ± 1.91d	3.51 ± 0.32ab	2.17 ± 0.48ab	2.58 ± 0.06b	27.48 ± 3.70bc
	PM + CO	1.26 ± 0.04abc	53.14 ± 1.01ab	5.02 ± 0.33ab	58.16 ± 1.10ab	3.69 ± 0.28ab	2.49 ± 0.42a	2.51 ± 0.05b	36.46 ± 5.85b
	PM + MM	1.15 ± 0.07c	55.19 ± 1.62a	7.42 ± 1.44a	62.61 ± 1.80a	3.87 ± 0.06a	2.98 ± 0.08a	2.27 ± 0.01c	40.89 ± 5.84a
20–40	PM	1.53 ± 0.02a	39.94 ± 1.35c	3.23 ± 0.37b	43.17 ± 1.16cd	3.17 ± 0.30a	1.59 ± 0.35bc	2.71 ± 0.06ab	13.98 ± 1.40b
	PM + BS	1.38 ± 0.05bc	45.04 ± 1.92b	2.92 ± 0.36b	47.96 ± 1.94bc	2.21 ± 0.36b	0.84 ± 0.21c	2.80 ± 0.04a	15.22 ± 0.85b
	PM + MC	1.51 ± 0.05ab	40.42 ± 1.57c	3.18 ± 0.55b	43.93 ± 1.82cd	3.11 ± 0.47a	1.74 ± 0.45bc	2.64 ± 0.06abc	9.88 ± 1.02b
	PM + CJ	1.58 ± 0.03a	39.33 ± 0.85c	2.75 ± 0.37b	42.08 ± 0.86d	3.89 ± 0.21a	2.74 ± 0.36a	2.49 ± 0.07c	13.40 ± 2.68b
	PM + CO	1.32 ± 0.05c	47.79 ± 1.46ab	3.58 ± 0.51b	51.37 ± 1.53b	3.36 ± 0.14a	1.91 ± 0.78ab	2.61 ± 0.02bc	19.28 ± 3.21ab
	PM + MM	1.29 ± 0.06c	51.51 ± 1.13a	5.69 ± 1.26a	57.19 ± 1.99a	3.78 ± 0.12a	2.84 ± 0.15a	2.32 ± 0.01d	30.82 ± 10.57a
40–60	PM	1.55 ± 0.43ab	39.52 ± 1.50c	3.33 ± 0.47b	42.84 ± 1.30c	3.54 ± 0.33a	2.19 ± 0.44abc	2.59 ± 0.06ab	12.83 ± 1.66b

60–80	PM + BS	1.54 ± 0.05ab	36.30 ± 2.17c	3.25 ± 0.46b	39.55 ± 1.97c	2.95 ± 0.19a	1.37 ± 0.16c	2.72 ± 0.01a	13.19 ± 0.75b
	PM + MC	1.54 ± 0.04ab	38.90 ± 1.02c	3.18 ± 0.47b	42.08 ± 1.17c	3.00 ± 0.34a	1.59 ± 0.36c	2.65 ± 0.07ab	8.55 ± 1.67b
	PM + CJ	1.60 ± 0.03a	37.72 ± 1.15c	2.75 ± 0.24b	40.47 ± 1.28c	3.96 ± 0.21a	2.88 ± 0.32ab	2.46 ± 0.04bc	10.28 ± 2.42b
	PM + CO	1.43 ± 0.04b	44.61 ± 0.91b	3.22 ± 0.36b	47.84 ± 0.96b	3.17 ± 0.56a	1.87 ± 0.65bc	2.63 ± 0.11ab	13.04 ± 4.83b
	PM + MM	1.27 ± 0.07c	48.89 ± 1.16a	4.81 ± 0.64a	53.71 ± 1.35a	4.03 ± 0.06a	3.22 ± 0.11a	2.27 ± 0.04c	28.76 ± 9.69a
	PM	1.57 ± 0.03ab	41.81 ± 1.64bc	2.90 ± 0.34ab	44.71 ± 1.58b	3.38 ± 0.58a	2.07 ± 0.67b	2.63 ± 0.10a	12.32 ± 3.36ab
	PM + BS	1.67 ± 0.02a	34.26 ± 0.76d	2.38 ± 0.27b	36.64 ± 0.65c	3.73 ± 0.03a	2.25 ± 0.06b	2.63 ± 0.02a	9.61 ± 0.47b
	PM + MC	1.60 ± 0.05ab	38.15 ± 1.61cd	2.01 ± 0.32b	40.16 ± 1.87c	3.39 ± 0.22a	1.86 ± 0.30b	2.66 ± 0.04a	9.04 ± 0.76b
	PM + CJ	1.56 ± 0.03ab	36.99 ± 1.12d	2.59 ± 0.29b	39.58 ± 1.18c	2.81 ± 0.25a	2.53 ± 0.42ab	2.54 ± 0.08a	8.08 ± 0.49b
	PM + CO	1.46 ± 0.05bc	42.32 ± 0.85b	2.91 ± 0.34ab	45.23 ± 0.88b	3.77 ± 0.17a	2.52 ± 0.28ab	2.53 ± 0.05a	8.84 ± 4.13b
80–100	PM + MM	1.37 ± 0.06b	46.38 ± 1.56a	3.95 ± 0.80a	50.33 ± 1.86a	4.32 ± 0.07a	3.67 ± 0.17a	2.19 ± 0.07b	20.43 ± 5.62a
	PM	1.59 ± 0.04a	42.42 ± 2.32ab	2.69 ± 0.32ab	45.10 ± 2.11ab	3.67 ± 0.11a	2.27 ± 0.23a	2.59 ± 0.07a	10.74 ± 2.95a
	PM + BS	1.66 ± 0.03a	36.71 ± 0.97c	2.57 ± 0.25ab	39.29 ± 1.09c	3.61 ± 0.11a	2.24 ± 0.18a	2.58 ± 0.03a	9.59 ± 0.82a
	PM + MC	1.55 ± 0.03ab	38.14 ± 0.99bc	2.25 ± 0.37b	40.39 ± 1.05c	3.56 ± 0.17a	2.19 ± 0.30a	2.57 ± 0.06a	8.22 ± 1.34a
	PM + CJ	1.55 ± 0.03ab	36.07 ± 1.62c	2.45 ± 0.36ab	38.52 ± 1.56c	3.80 ± 0.21a	2.60 ± 0.34a	2.51 ± 0.05a	7.86 ± 2.73a
	PM + CO	1.43 ± 0.06bc	39.67 ± 1.00abc	2.38 ± 0.13ab	42.05 ± 0.97bc	3.98 ± 0.34a	2.87 ± 0.63a	2.49 ± 0.11a	10.30 ± 3.95a
	PM + MM	1.35 ± 0.07c	43.29 ± 1.31a	3.31 ± 0.35a	46.60 ± 1.28a	3.79 ± 0.23a	2.83 ± 0.45a	2.32 ± 0.14a	16.01 ± 3.64a

Note: *Pinus massoniana* (PM), *Bretschneidera sinensis* (BS), *Manglietia chingii* (MC), *Cercidiphyllum japonicum* (CJ), *Camellia oleifera* (CO), and *Michelia maudiae* (MM). SBD: soil bulk density, CP: capillary porosity, NCP: noncapillary porosity, TP: total porosity, MWD: mean weight diameter, GWD: geometric mean diameter, D: mass fractal dimension, and SOC: soil organic carbon. Different lowercase letters in the same soil layer indicate significant differences among different forest types ($P < 0.05$).