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Hillslope subsurface flow is driven by vegetation more than soil properties in colonized valley moraines along a humid mountain elevation

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Supplementary captions:

Figure S1. Overview of (a) the selected forests (1# and 3#) and the experiment site (2#) in Hailuo valley (image from © Google Earth; blue areas indicate shadows in the satellite view), (b) digital elevation model of Hailuo valley, and (c) a photograph of the experimental apparatus at site 2#.

Figure S2. Forest ground layer in coniferous (left) and broadleaf (right) forest (moss within the white circle in the coniferous forest was removed to enhance visibility of the litter layer).

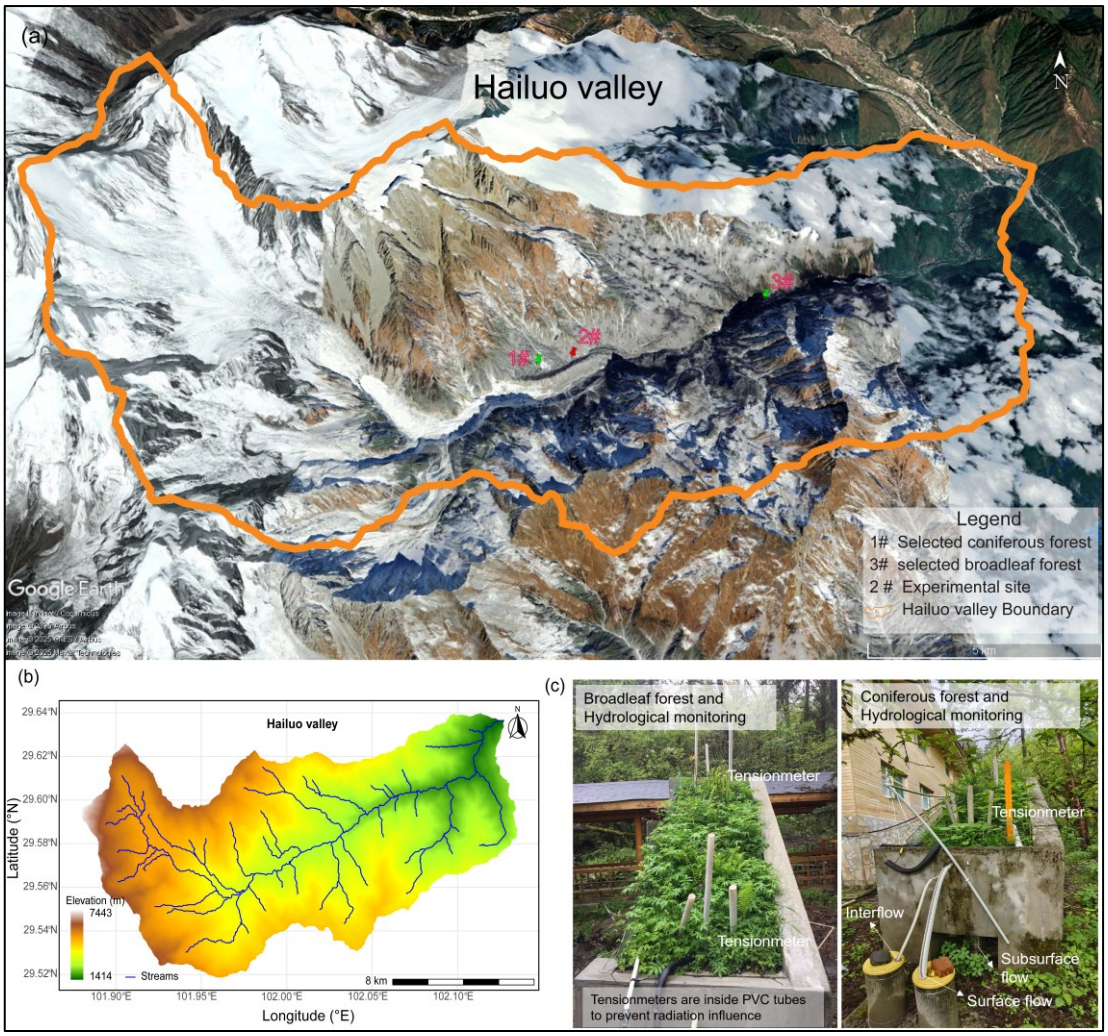
Figure S3. Multiple simulations (10 runs) under each set-up and within-group differences (a, b), as well as between-group differences among different set-ups (c, d) in the broadleaf and coniferous forests (ns denotes not significant; * denotes significance at the 0.05 level).

Figure S4. Sensitivity analysis of saturated hydraulic conductivity of PFPs (Ks_pfps) on NSE and WB at the event scale.

Figure S5. Spatial distribution of slopes (upper panel) and frequency histogram with the mean value (lower panel).

Figure S6. Water retention curve of soil and PFPs at different depths and in different forest types (log-transferred soil suction on the y-axis).

Table S1. Time and corresponding magnitude of sequential peak flows at the event scale.



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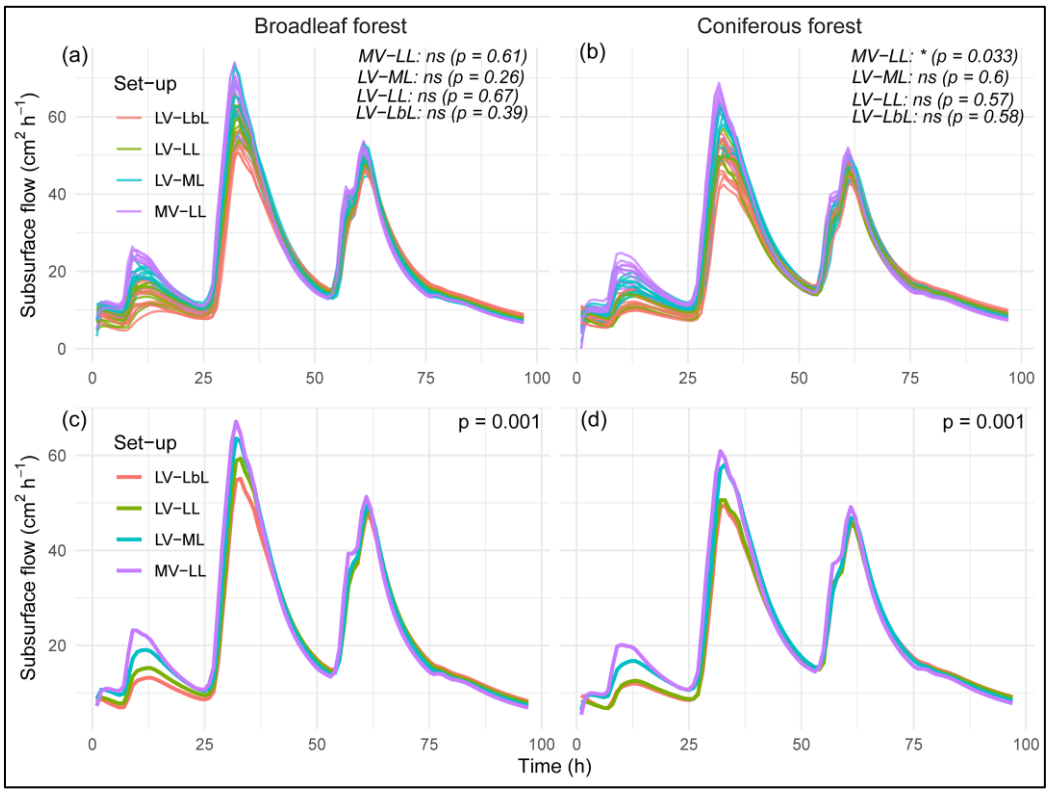

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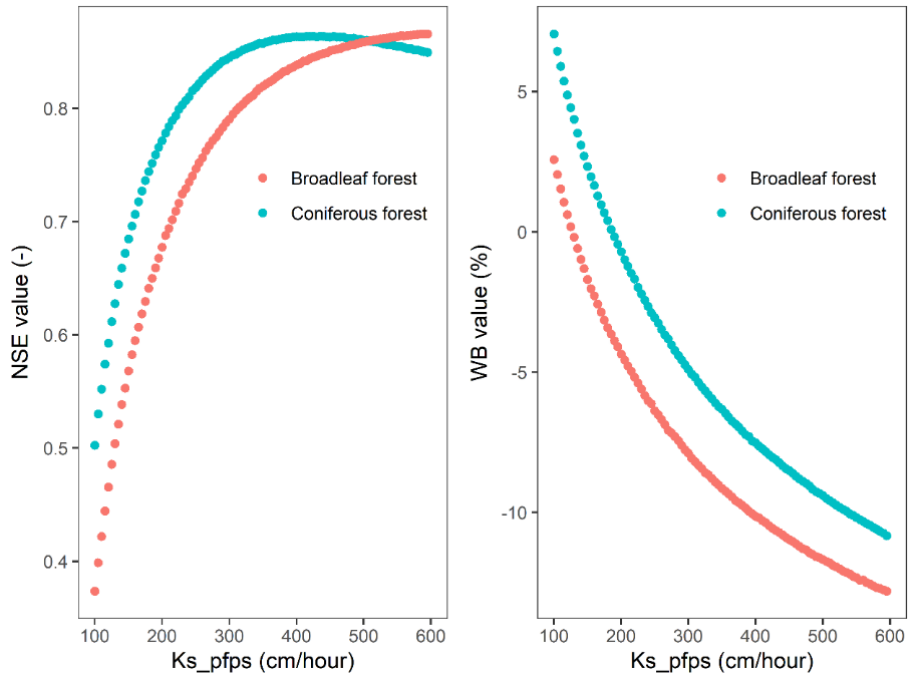

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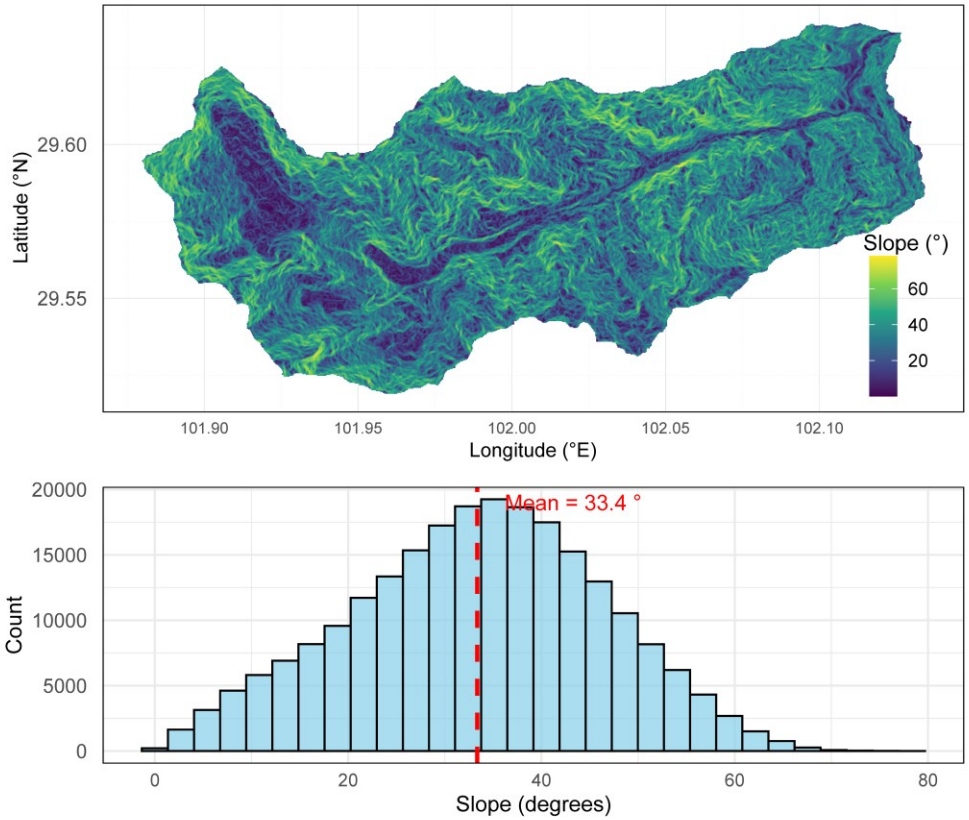

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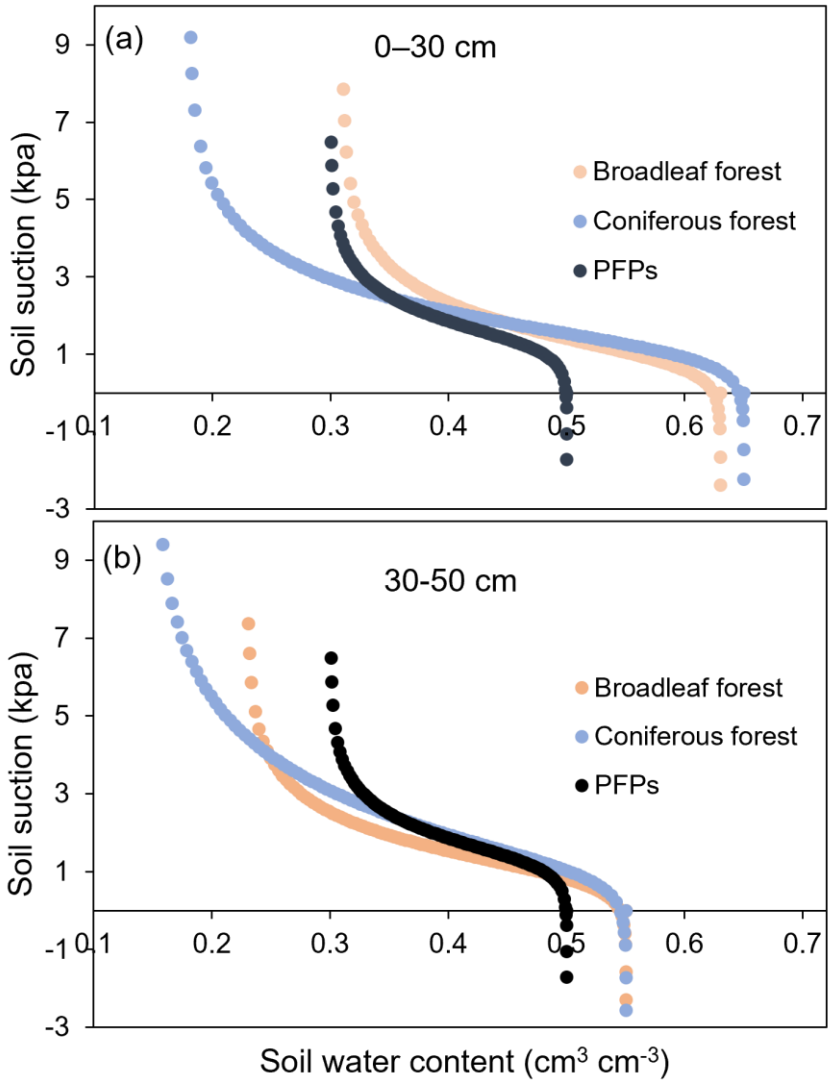

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Table S1. Time and corresponding magnitude of sequential peak flows at the event scale.

Set-ups	Coniferous forest						Broadleaf forest					
	Peak flow timing (hr)			Peak flow magnitude (cm^2 hr^{-1})			Peak flow timing (hr)			Peak flow magnitude (cm^2 hr^{-1})		
	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
LV-LbL	14.11	32.99	61.72	9.30	46.37	44.90	13.15	32.51	61.31	11.00	54.59	47.70
LV-LL	13.62	32.81	61.23	11.50	48.16	44.94	13.23	32.44	61.23	13.81	55.20	47.03
LV-ML	14.62	33.26	62.19	12.95	52.50	44.39	13.74	33.75	62.21	15.10	61.37	47.03
Mean	**14.12**	**33.02**	**61.71**	**11.25**	**49.01**	**44.74**	**13.37**	**32.90**	**61.58**	**13.30**	**57.05**	**47.25**
LV-LbL-G	12.48	31.00	60.31	16.81	64.03	53.33	-	-	-	-	-	-
LV-LL-G	9.65	31.13	60.15	19.49	62.98	53.13	9.18	31.23	60.23	23.45	67.13	54.55
LV-ML-G	9.50	31.51	60.54	23.54	65.80	51.21	9.40	31.48	60.38	24.39	63.91	51.18
Mean	**10.54**	**31.21**	**60.33**	**19.95**	**64.27**	**52.56**	**9.29**	**31.36**	**60.31**	**23.92**	**65.52**	**52.87**