

**Table S1.** Floristic composition of tree species at different altitude and aspects.

Sr. No.	Tree species	Altitudinal ranges (m asl)												Total	
		AR <sub>1</sub> (1000–1300 m a.s.l.)				AR <sub>2</sub> (1300–1600 m a.s.l.)				AR <sub>3</sub> (1600–1900 m a.s.l.)					
		E	W	N	S	E	W	N	S	E	W	N	S		
1	<i>Pinus roxburghii</i>	+	+	+	+	+	+	+	+	+	+	+	+	12	
2	<i>Cedrus deodara</i>	-	-	+	-	-	-	-	-	-	-	+	-	2	
3	<i>Quercus leucotrichophora</i>	-	-	+	-	+	-	+	-	-	+	+	-	5	
4	<i>Acacia catechu</i>	-	-	-	+	-	-	-	+	-	-	-	-	2	
5	<i>Myric aesculenta</i>	+	-	-	-	-	+	-	-	-	-	-	-	2	
6	<i>Bauhinia variegata</i>	-	-	-	-	-	-	-	+	-	-	-	-	1	
7	<i>Albizia chinensis</i>	+	-	-	-	+	-	-	-	-	-	-	-	2	
8	<i>Acer oblongum</i>	-	-	+	-	-	-	-	-	-	-	-	-	1	
9	<i>Erythrina indica</i>	-	-	-	+	-	-	+	+	-	-	-	-	3	
10	<i>Bombax ceiba</i>	-	-	-	-	-	-	-	+	-	-	-	-	1	
11	<i>Butea monosperma</i>	-	-	-	-	-	-	-	+	-	-	-	-	1	
<b>Total</b>		<b>3</b>	<b>1</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>6</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>1</b>		

E (eastern aspect), W (western aspect), N (northern aspect), S (southern aspect), + (species present), - (species absent); altitudinal ranges of study area: AR<sub>1</sub> (1000–1300 m above mean sea level (m a.s.l.)), AR<sub>2</sub> (1300–1600 m a.s.l.) and AR<sub>3</sub> (1600–1900 m a.s.l.).

**Table S2.** Floristic compositions of shrub species at different altitudes and aspects.

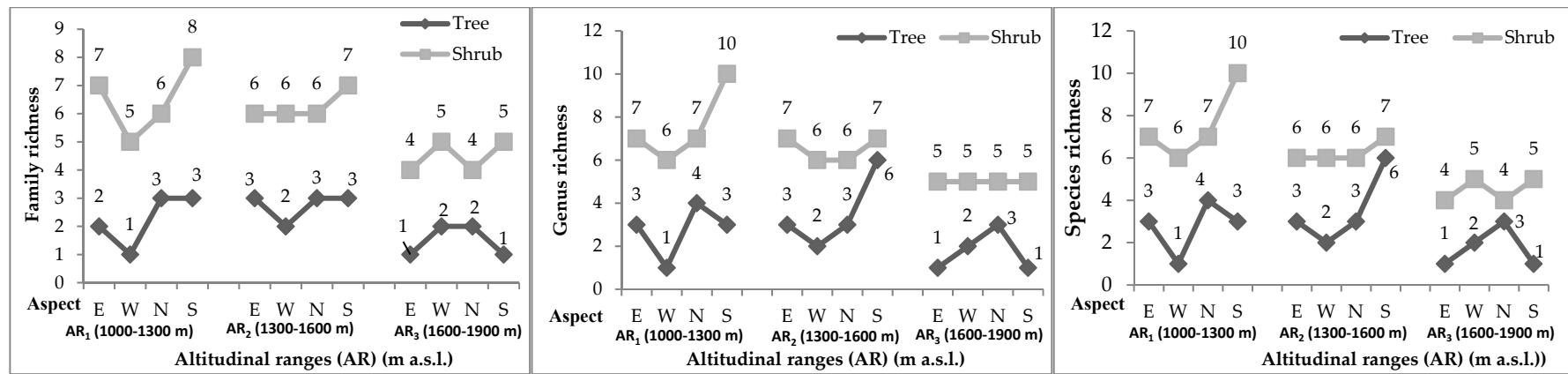
Sr. No .	Shrub species	Altitudinal ranges (AR)												Total	
		AR <sub>1</sub> (1000–1300 m a.s.l.)				AR <sub>2</sub> (1300–1600 m a.s.l.)				AR <sub>3</sub> (1600–1900 m a.s.l.)					
		E	W	N	S	E	W	N	S	E	W	N	S		
1	<i>Lantana camara</i>	+	+	–	+	–	–	–	–	–	–	+	+	5	
2	<i>Berberis aristata</i>	–	+	+	+	+	–	+	+	–	–	+	+	8	
3	<i>Carissa carandas</i>	+	+	–	–	–	+	–	–	+	–	+	+	6	
4	<i>Coriaria nepalensis</i>	–	–	+	–	+	–	+	–	+	+	–	–	5	
5	<i>Myrsine africana</i>	–	–	+	–	+	–	–	+	–	+	–	+	5	
6	<i>Indigofera cassioides</i>	–	+	–	–	–	+	–	–	–	–	+	+	4	
7	<i>Sarcococca saligna</i>	–	–	+	–	–	–	–	–	–	–	–	–	1	
8	<i>Daphne cannabina</i>	–	–	+	–	+	–	–	+	–	–	–	–	3	
9	<i>Woodfordia fruticosa</i>	–	–	–	+	–	–	+	–	–	+	–	–	3	
10	<i>Rubus ellipticus</i>	–	–	+	–	+	–	+	–	–	–	–	–	3	
11	<i>Osyris arborea</i>	–	–	–	+	–	+	+	–	–	–	–	–	3	
12	<i>Randia tetrasperma</i>	+	–	–	+	–	–	–	+	–	–	–	–	3	
13	<i>Adhatoda vasica</i>	+	–	–	+	–	–	–	–	+	–	–	–	3	
14	<i>Cassia floribunda</i>	–	–	–	–	–	–	+	–	–	–	–	–	1	
15	<i>Woodfordia floribunda</i>	+	+	–	–	–	–	+	–	–	–	–	–	3	
16	<i>Artemisia vulgaris</i>	–	–	–	+	–	+	–	–	–	–	–	–	2	
17	<i>Prinsepia utilis</i>	–	–	–	+	–	+	–	–	–	+	–	–	3	
18	<i>Rabdosia rubescens</i>	+	+	–	+	–	+	–	+	–	–	–	–	5	
19	<i>Boenninghausenia albiflora</i>	–	–	+	–	+	–	–	+	+	–	–	–	4	
20	<i>Hypericum oblongifolium</i>	–	–	–	–	–	–	–	+	–	–	–	–	1	
21	<i>Randia tetrasperma</i>	+	–	–	+	–	–	–	–	–	+	–	–	3	
<b>Total</b>		<b>7</b>	<b>6</b>	<b>7</b>	<b>10</b>	<b>6</b>	<b>6</b>	<b>7</b>	<b>7</b>	<b>4</b>	<b>5</b>	<b>4</b>	<b>5</b>		

E (eastern aspect), W (western aspect), N (northern aspect), S (southern aspect), + (species present), - (species absent); altitudinal ranges of study area: AR<sub>1</sub> (1000–1300 m above mean sea level (m a.s.l.)), AR<sub>2</sub> (1300–1600 m a.s.l.) and AR<sub>3</sub> (1600–1900 m a.s.l.)

**Table S3.** Distribution of vegetation communities and forest types with aspects and altitudinal ranges.

		Vegetation community/Forest type							
		Eastern (E)		Western (W)		Northern (N)		Southern (S)	
Vegetati on commu nity	Type*	Vegetation community	Type*	Vegetation community	Type*	Vegetation community	Type*	Vegetation community	Type*
Altitudinal ranges (in a.s.l.)	AR <sub>1</sub> (1000- 1300 m asl)	Chir pine commu nity		Chir pine community		Chir pine– Oak community		Chir pine– Khair community	
	AR <sub>2</sub> (1300-1600 m a.s.l.)	Chir pine– Oak commu nity	9/C1 Himalayan subtropical pine forest; Subtype 9/C1b	Chir pine– Myrica community	9/C1 Himalaya n subtropica l pine forest; Subtype 9/C1b	Chir pine– Oak community	12C1 Lower western Himalaya temperate; Subtype 12C1a Ban oak forest	Chir pine, Khair and miscellaneou s mixed broad leave vegetation community	9/C1 Himalayan subtropical pine forest Subtype 9/C1a
	AR <sub>3</sub> (1600- 1900 m asl)	Chir pine commu nity	Upper or Himalayan chir pine forest	Chir pine community	Upper or Himalaya n chir pine forest	Chir pine - Oak community	(Quercus leucotrichop hora)	Chir-pine community	Lower shiwalik Chir pine forest

\*= as per the Champion and Seth [57] classification.



**Figure S1.** The total richness of family, genus, and species of trees and shrubs to aspects and altitudinal ranges on the mid-hills of Himachal Pradesh; where E (eastern aspect), W (western aspect), N (northern aspect), S (southern aspect).