

# Effects of Perceived Biodiversity on Human Health Restoration Benefits in Pocket Parks

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Supplementary Table 1: Abbreviated profile of mood states

NO.	Feelings	Very little (1)	A little (2)	Moderately (3)	Quite a bit (4)	Very much (5)
1	Nervous	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Listless	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Lighthearted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Confused	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Worn-out	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Energetic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Confident	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Depressed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Active	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Restless	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	Weary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	Gloomy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	Efficient	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	Exhausted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	Worthless	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	Vigorous	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17	Satisfied	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	Anxious	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	Helpless	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20	Proud	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## NOTE

Nos. 1, 4, 10, and 18 correspond to "tension"; Nos. 2, 5, 11, and 14 correspond to "fatigue"; Nos. 8, 12, 15, and 19 correspond to "depression"; Nos. 3, 6, 9, and 16 correspond to "energy"; Nos. 7, 13, 17, and 20 correspond to "esteem."

**Supplementary Table 2: Perceived restorativeness scale**

No.	Description	Very little (1)	A little (2)	Moderately (3)	Quite a bit (4)	Very much (5)
1	I feel a sense of relief here.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	This place allows me to rest and get away from daily routines.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	This place enables me to have many pleasant imaginings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	I find this scene to have attractive qualities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	I can temporarily escape the pressures of daily life and study.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	This place helps me relax mentally.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	I would like to learn more about this place.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	There is a lot to explore and discover here.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	I wish I could spend more time appreciating the surroundings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	This place is fascinating.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	It blends well with the surroundings and doesn't feel out of place.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	I am curious about what lies beyond my view.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**NOTE**

Nos. 1, 2, 5, and 6 correspond to the Being-Away dimension; Nos. 4, 7, 9, and 10 correspond to the Fascination dimension; and Nos. 3, 8, 11, and 12 correspond to the Extent dimension.

**Supplementary Table 3: Perceived biodiversity scale**

No.	Description	Very low (1)	Low (2)	Moderate (3)	High (4)	Very high (5)
1	How high or low do you perceive the plant diversity in this environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	How high or low do you perceive the tree diversity in this environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	How high or low do you perceive the shrub diversity in this environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	How high or low do you perceive the herbaceous plant diversity in this environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5	How high or low do you perceive the bird diversity in this environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Supplementary Table 4: Connectivity with nature scale**

No.	Description	Very little (1)	A little (2)	Moderately (3)	Quite a bit (4)	Very much (5)
1	I often feel a sense of oneness with the natural world.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	I think of the natural world as a community to which I belong.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	I recognize and appreciate the intelligence of other living organisms on Earth.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	I often feel a sense of separation from the natural world.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	When I think about the meaning of life, I consider myself part of the cycle of nature.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	I often feel a kinship with animals and plants.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	The Earth is mine, and I am the Earth's.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	I am very aware of the consequences of my actions on the natural environment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	I often feel like I am part of the web of life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	I believe that both humans and other living beings share the same "life force" or principle of being.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	Just as a tree is part of the forest, I am part of the natural world.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	I see myself as at the top of the natural hierarchy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	In nature, I feel small and insignificant, just like the grass and the trees.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	My personal well-being is independent of the well-being of the natural world.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Supplementary Table 5: Main effect analysis of plant diversity on physical and mental health indicators**

Type	Indicator	Type III sum of squares	df	Mean square	F	Sig.	Partial eta squared
HRV physiological indicators	AVHR	1,410.267	2	705.134	15.283	0.037*	0.224
	RMSSD	8,821.857	2	4,410.928	37.073	0.011*	0.412
	LF/HF	140.429	2	70.215	59.936	0.007**	0.531
POMS psychological indicators	Tension	604.179	2	302.089	33.301	0.000***	0.386
	Fatigue	1,048.815	2	524.407	91.780	0.000***	0.634
	Depression	684.937	2	342.469	46.384	0.001**	0.467
	Esteem	487.312	2	243.656	28.478	0.006**	0.350
	Vigor	482.092	2	241.046	30.232	0.000***	0.363

**Supplementary Table 6: Between-subjects effect analysis of bird diversity on physical and mental health indicators**

Type	Indicator	Type III sum of squares	df	Mean square	F	Sig.	Partial eta squared
HRV physiological indicators	AVHR	694.612	1	694.612	15.055	0.022*	0.124
	RMSSD	6,756.542	1	6,756.542	56.787	0.003**	0.349
	LF/HF	43.881	1	43.881	37.457	0.030*	0.261
POMS psychological indicators	Tension	905.107	1	905.107	99.774	0.010*	0.485
	Fatigue	166.782	1	166.782	29.190	0.001**	0.216
	Depression	244.998	1	244.998	33.183	0.000***	0.238
	Esteem	345.831	1	345.831	40.420	0.000***	0.276
	Vigor	398.057	1	398.057	49.925	0.001**	0.320

**health indicators**

**NOTE**

\* indicates  $p < 0.05$ , \*\* indicates  $p < 0.01$ , and \*\*\* indicates  $p < 0.001$ .

**Supplementary Table 7: Interaction effect analysis of plant and bird diversity**

Type	Indicator	Source of variation	Type III sum of squares	df	Mean square	F	Sig.	Partial eta squared
HRV physiological indicators	AVHR	Plant diversity × Bird diversity	115.542	2	57.771	1.252	0.290	0.023
	RMSSD	Plant diversity × Bird diversity	2,647.370	2	1,323.685	11.125	0.000***	0.173
	LF/HF	Plant diversity	8.160	2	4.080	3.483	0.034*	0.062

		× Bird diversity						
POMS psychological indicators	Tension	Plant diversity × Bird diversity	115.578	2	57.789	5.766	0.004**	0.098
	Fatigue	Plant diversity × Bird diversity	2.933	2	1.466	0.257	0.774	0.005
	Depression	Plant diversity × Bird diversity	28.396	2	14.198	1.831	0.165	0.033
	Esteem	Plant diversity × Bird diversity	94.110	2	47.055	5.500	0.005**	0.094
	Vigor	Plant diversity × Bird diversity	92.203	2	46.102	6.665	0.002**	0.112