

Supplementary material:

Public perceptions of biodiversity and the value of its conservation

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S1: Sample demographics

Table S1.1. Demographic details for the full sample

<u>Gender</u>		
Woman		49%
Man		51%
Other		1%
<u>Age</u>		
18 - 37		41%
38 - 57		33%
58 +		26%
<u>Region</u>		
Hovedstaden		31%
Sjælland		15%
Syddanmark		20%
Midtjylland		22%
Nordjylland		12%
<u>Education</u>		
University degree		56%
Total number of respondents		323

S2: Supporting material for data analysis of the first Q-sort

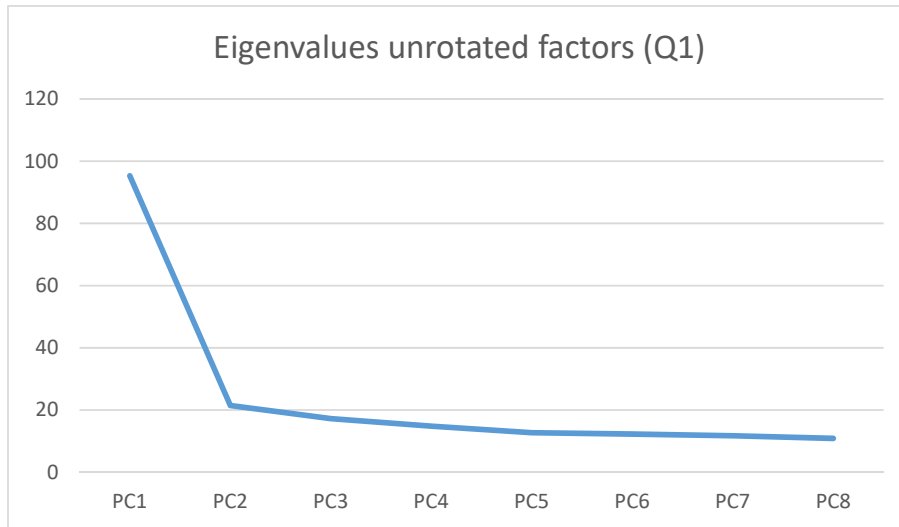


Figure S2.1: Scree plot of the eigenvalues of the unrotated factors extracted with PCA

Table S2.1. Correlation matrix of the extracted factors in the first Q-sort

	P1	P2	P3	P4	P5
P1 Diversity – on all levels	1.00	0.40	0.55	0.42	-0.03
P2 - Naturalness	0.40	1.00	0.44	0.37	-0.13
P3 - Diversity – of species	0.55	0.44	1.00	0.42	-0.03
P4 - Diversity – and interaction	0.42	0.37	0.42	1.00	-0.03
P5 - Human intervention - Complexity & Conditions	-0.03	-0.13	-0.03	-0.03	1.00

Table S2.2. Demographic details for the respondents loading on the different perspectives regarding perceptions of biodiversity. The NA column represents data for respondents not loading on any perspective, or loading highly on more than one factor.

	P1	P2	P3	P4	P5	NA
<u>Gender</u>						
Woman	42%	59%	48%	43%	55%	51%
Man	56%	41%	52%	57%	45%	48%
Other	2%	0%	0%	0%	0%	1%
<u>Age</u>						
18 - 37	47%	30%	24%	36%	55%	42%
38 - 57	31%	36%	33%	50%	36%	31%
58 +	21%	34%	43%	14%	9%	27%
<u>Region</u>						
Hovedstaden	35%	23%	50%	46%	9%	26%
Sjælland	15%	13%	15%	23%	18%	15%
Syddanmark	15%	33%	10%	15%	36%	20%
Midtjylland	20%	21%	20%	8%	18%	27%
Nordjylland	15%	10%	5%	8%	18%	11%
<u>Education</u>						
University degree	67%	34%	48%	43%	64%	55%
<u>Have you heard the term biodiversity before?</u>						
No	1%	2%	5%	0%	0%	2%
Yes, but don t know what it is	4%	9%	0%	7%	18%	10%
Yes, and I have an idea of what it is	28%	48%	33%	57%	64%	32%
Yes, and I have an understanding of what it is	31%	30%	43%	29%	18%	35%
Yes, and I know what it is	36%	11%	19%	7%	0%	21%
Number of respondents	112	44	21	14	11	121

S3: Supporting material for data analysis of the second Q-sort

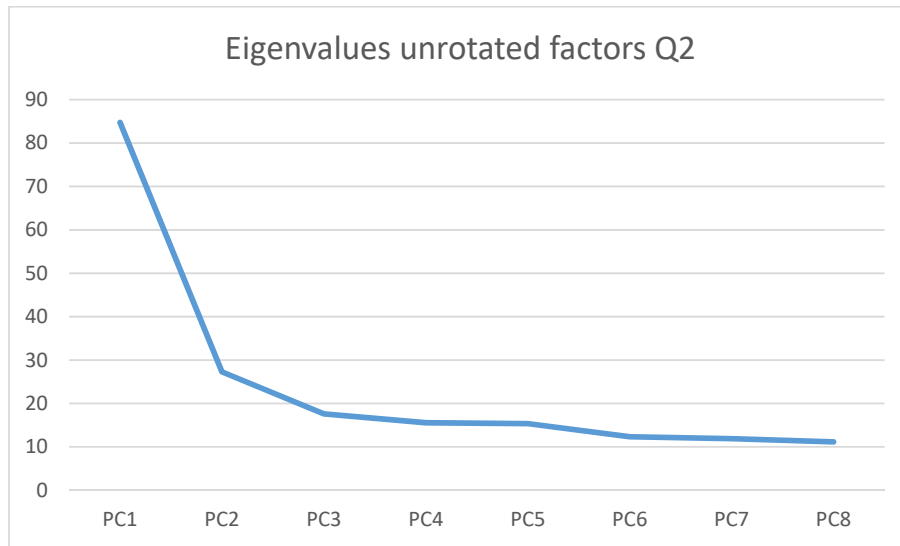


Figure S3.1: Scree plot of the eigenvalues of the unrotated factors extracted with PCA

Table S3.1. Correlation matrix of the extracted factors in the second Q-sort

	P1	P2	P3	P4
P1 - Living from nature: Instrumental values	1.00	0.51	0.37	0.27
P2 - Living with nature: Stewardship & Responsibility	0.51	1.00	0.53	0.27
P3 - Living in/with nature: Stability	0.37	0.53	1.00	0.25
P4 - Living in nature: Experiencing nature	0.27	0.27	0.25	1.00

Table S3.2. Demographic details for the respondents loading on the different perspective regarding perceptions of the value of biodiversity conservation. The NA column represents data for respondents not loading on any perspective, or loading highly on more than one factor.

	P1	P2	P3	P4	NA
<u>Gender</u>					
Woman	57%	52%	25%	57%	47%
Man	43%	43%	75%	43%	53%
Other	0%	5%	0%	0%	0%
<u>Age</u>					
18 - 37	46%	43%	23%	43%	43%
38 - 57	35%	38%	30%	24%	30%
58 +	18%	18%	48%	33%	28%
<u>Region</u>					
Hovedstaden	36%	34%	29%	20%	27%
Sjælland	11%	15%	31%	15%	12%
Syddanmark	20%	21%	12%	20%	22%
Midtjylland	21%	21%	17%	20%	28%
Nordjylland	11%	10%	12%	25%	11%
<u>Education</u>					
University degree	57%	57%	68%	67%	46%
<u>Have you heard the term biodiversity before?</u>					
No	0%	3%	2%	0%	2%
Yes, but don t know what it is	8%	8%	7%	10%	6%
Yes, and I have an idea of what it is	38%	31%	25%	33%	39%
Yes, and I have an understanding of what it is	29%	34%	39%	38%	31%
Yes, and I know what it is	24%	25%	27%	19%	21%
Number of respondents	99	65	44	21	94

S4: Crib sheets used in the interpretation of the factors from the first Q-sort

Crib sheet perspective 1 (Q-sort 1)

Highest rated:

- ...with the number of different plants and animals etc.
- ...with the difference between plant and animal species etc.
- ...with genetic diversity within plant and animal species etc.
- ...with the diversity of nature

Higher rated:

- ...with the interaction between the landscape and the plant and animal species etc.
- ...with the differences between natural areas

Lower rated:

- ...with the conditions for life on earth
- ...with the life we cannot see

Lowest rated:

- ...with how much new organic matter nature creates through, for example, photosynthesis
- ...with man-made, planned, and cared for and planted nature
- ...with something humans do to improve what we get from nature
- ...with something abstract and undefinable

P1	P2	P3	P4	P5
4	-2	3	2	0
4 *	-1	-2	1	-2
3 *	-2	-1	3	0
3	4	4	0	0
2 *	1	-1	-2	0
1 *	0	-2	-2	-1
-1 *	0	1	3	4
-2 *	0	0	0	-1
-3	0	-4	0	1
-3	-4	-3	-4	3
-4	-3	-3	-4	2
-4	-4	-4	-3	-2

Crib sheet perspective 2 (Q-sort 1)

Highest rated:

- ...with the diversity of nature
- ...with natural biological processes, e.g. decomposition and grazing
- ...with wild nature
- ...with untouched nature - an absence of human influence

Higher rated:

- ...with naturalness
- ...with the balance of nature

Lower rated:

- ...with the number of plants and animals etc.
- ...with all living creatures on earth
- ...with the number of different plants and animals etc.
- ...with genetic diversity within plant and animal species etc.

Lowest rated:

- ...with something humans do to improve what we get from nature
- ...with endangered plant and animal species etc.
- ...with man-made, planned, and cared for and planted nature
- ...with something abstract and undefinable

P2	P1	P3	P4	P5
4	3	4	0	0
4 *	0	-1	1	1
3 *	1	1	-1	-4
3 *	0	2	0	-4
2 *	-1	0	0	-3
2 *	1	2	-1	0
-1	0	4	2	-1
-1 *	-1	1	4	2
-2 *	4	3	2	0
-2	3	-1	3	0
-3 *	-4	-3	-4	2
-3 *	1	3	-1	0
-4	-3	-3	-4	3
-4	-4	-4	-3	-2

Crib sheet perspective 3 (Q-sort 1)

Highest rated:

- ...with the number of plants and animals etc.
- ...with the diversity of nature
- ...with the number of different plants and animals etc.
- ...with endangered plant and animal species etc.

P3	P1	P2	P4	P5
4 *	0	-1	2	-1
4	3	4	0	0
3	4	-2	2	0
3 *	1	-3	-1	0

Higher rated:

...with iconic Danish plant and animal species etc.

0	*	-2	-2	-2	-3
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Lower rated:

...with the interaction between different plants and animals etc.

0		2	1	4	2
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...with the stability/resilience of nature

0		0	0	1	3
---	--	---	---	---	---

...with nature's ability to adapt to change

-1	*	0	1	0	1
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...with natural biological processes, e.g. decomposition and grazing

-1	*	0	4	1	1
----	---	---	---	---	---

...with the difference between plant and animal species etc.

-2		4	-1	1	-2
----	--	---	----	---	----

...with physical landscapes, e.g. hills, valleys, rivers, lakes and the sea

-2		-1	-1	1	-1
----	--	----	----	---	----

Lowest rated:

...with something humans do to improve what we get from nature

-3		-4	-3	-4	2
----	--	----	----	----	---

...with man-made, planned, and cared for and planted nature

-3		-3	-4	-4	3
----	--	----	----	----	---

...with how much new organic matter nature creates through, for example, photosynthesis

-4		-3	0	0	1
----	--	----	---	---	---

...with something abstract and undefinable

-4		-4	-4	-3	-2
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Crib sheet perspective 4 (Q-sort 1)

Highest rated:

...with the interaction between different plants and animals etc.

P4		P1	P2	P3	P5
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...with all living creatures on earth

4	*	2	1	0	2
---	---	---	---	---	---

...with genetic diversity within plant and animal species etc.

4	*	-1	-1	1	2
---	---	----	----	---	---

...with the conditions for life on earth

3	*	3	-2	-1	0
---	---	---	----	----	---

Higher rated:

...with the vitality of nature

3		-1	0	1	4
---	--	----	---	---	---

...with physical landscapes, e.g. hills, valleys, rivers, lakes and the sea

2		-2	2	0	-2
---	--	----	---	---	----

...with the life we cannot see

1	*	-1	-1	-2	-1
---	---	----	----	----	----

Lower rated:

...with the state of nature

0		-2	0	0	-1
---	--	----	---	---	----

...with the balance of nature

-1		0	0	1	1
----	--	---	---	---	---

...with the differences between natural areas

-1	*	1	2	2	0
----	---	---	---	---	---

Lowest rated:

...with the complexity of an ecosystem

-2		1	0	-2	-1
----	--	---	---	----	----

...with something abstract and undefinable

-3	*	2	1	2	4
----	---	---	---	---	---

...with something humans do to improve what we get from nature

-3		-4	-4	-4	-2
----	--	----	----	----	----

...with man-made, planned, and cared for and planted nature

-4	*	-4	-3	-3	2
----	---	----	----	----	---

-4		-3	-4	-3	3
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Crib sheet perspective 5 (Q-sort 1)

Highest rated:

...with the complexity of an ecosystem

P5		P1	P2	P3	P4
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...with the conditions for life on earth

4	*	2	1	2	-3
---	---	---	---	---	----

...with man-made, planned, and cared for and planted nature

4		-1	0	1	3
---	--	----	---	---	---

...with the stability/resilience of nature

3	*	-3	-4	-3	-4
---	---	----	----	----	----

Higher rated:

...with something humans do to improve what we get from nature

3	*	0	0	0	1
---	---	---	---	---	---

...with how much new organic matter nature creates through, for example, photosynthesis

2	*	-4	-3	-3	-4
---	---	----	----	----	----

...with the state of nature

1	*	-3	0	-4	0
---	---	----	---	----	---

...with nature's ability to adapt to change

1		0	0	1	-1
---	--	---	---	---	----

...with something abstract and undefinable

1		0	1	-1	0
---	--	---	---	----	---

Lower rated:

...with the diversity of nature

-2	*	-4	-4	-4	-3
----	---	----	----	----	----

...with the vitality of nature

0		3	4	4	0
---	--	---	---	---	---

-2		-2	2	0	2
----	--	----	---	---	---

Lowest rated:

- ...with naturalness
- ...with iconic Danish plant and animal species etc.
- ...with wild nature
- ...with untouched nature - an absence of human influence

-3	*	-1	2	0	0
-3		-2	-2	0	-2
-4	*	1	3	1	-1
-4	*	0	3	2	0

S5: Crib sheets used in the interpretation of the factors from the second Q-sort

Crib sheet perspective 1 (Q-sort 2)

Highest rated:

- Because it may be necessary for human survival
- Because biodiversity can contribute to slowing down climate change
- Because biodiversity can contribute to countering the consequences of climate change
- Because we do not know the consequences of losing biodiversity

Higher rated:

- Because biodiversity can improve nature's ability to resist and adapt to change
- Because biodiversity contributes to the production of a lot of products, e.g. food
- Because we do not know what biodiversity can contribute with the future
- Because biodiversity can be valuable to other people
- Because it is valuable to me that others can benefit from biodiversity
- Because it is important for our Danish culture and identity

Lower rated:

- Because biodiversity supports all life on earth
- Because nature, in itself, has a right to exist
- Because future generations must have the same opportunities that we have had
- Because just the fact that nature is well is valuable to me
- Because the fact that we try to do something for nature is valuable in itself

Lowest rated:

- Because biodiversity increases the joy of experiencing nature
- Because biodiversity makes the landscape more beautiful to look at
- Because it is important for our Danish culture and identity
- Because biodiversity makes nature a little more enchanting

	P1	P2	P3	P4
4 *	1	1	-1	
4 *	2	-4	2	
3	3	-3	0	
3 *	0	4	-3	
2 *	2	2	2	
1 *	-4	-2	0	
1 *	-1	0	-3	
0 *	-2	-1	-1	
-1	-2	-1	-2	
-4	-4	-4	-4	
2 *	3	3	4	
0 *	4	3	3	
0	0	0	3	
-1 *	1	1	0	
-2	0	0	-2	
-3 *	-1	0	1	
-3 *	-3	-3	2	
-4	-4	-4	-4	
-4 *	-2	-1	0	

Crib sheet perspective 2 (Q-sort 2)

Highest rated:

- Because nature, in itself, has a right to exist
- Because humans have a responsibility to protect biodiversity
- Because biodiversity supports all life on earth
- Because biodiversity can contribute to countering the consequences of climate change

Higher rated:

- Because just the fact that nature is well is valuable to me
- Because it is important that there are areas where people do not come
- Because the fact that biodiversity exists is valuable to me – even without it being experienced
- Because the fact that we try to do something for nature is valuable in itself
- Because it creates a better relationship between people and nature

Lower rated:

- Because biodiversity can be valuable for future generations
- Because we should be able to enjoy/benefit from biodiversity in the future
- Because biodiversity can contribute to us being able to see more plant and animal species
- Because biodiversity can be valuable to other people

Lowest rated:

- Because biodiversity gives us nature experiences we could not otherwise have
- Because biodiversity makes the landscape more beautiful to look at
- Because it is important for our Danish culture and identity
- Because biodiversity contributes to the production of a lot of products, e.g. food

	P2	P1	P3	P4
4 *	0	3	3	
4 *	1	2	1	
3	2	3	4	
3	3	-3	0	
1	-1	1	0	
1 *	-2	-2	-4	
0	-1	0	-2	
0	-2	0	-2	
-1	-1	-1	-1	
1	2	2	1	
0	1	1	0	
0	0	1	4	
-2 *	0	-1	-1	
-3 *	-2	0	1	
-3	-3	-3	2	
-4	-4	-4	-4	
-4 *	1	-2	0	

Crib sheet perspective 3 (Q-sort 2)

Highest rated:

Because biodiversity, in itself, is valuable - regardless of what we humans think
 Because we do not know the consequences of losing biodiversity
 Because nature, in itself, has a right to exist
 Because biodiversity supports all life on earth

Higher rated:

Because biodiversity can be valuable for future generations
 Because we should be able to enjoy/benefit from biodiversity in the future

Lower rated:

Because it creates a better relationship between people and nature
 Because biodiversity can contribute to our physical and mental health

Lowest rated:

Because biodiversity can contribute to countering the consequences of climate change
 Because biodiversity makes the landscape more beautiful to look at
 Because it is important for our Danish culture and identity
 Because biodiversity can contribute to slowing down climate change

P3		P1	P2	P4
4	*	0	2	-1
4	*	3	0	-3
3		0	4	3
3		2	3	4
2	*	2	1	1
1		1	0	0
-1		-1	-1	-1
-2	*	0	-1	0
-3	*	3	3	0
-3		-3	-3	2
-4		-4	-4	-4
-4	*	4	2	2

Crib sheet perspective 4 (Q-sort 2)

Highest rated:

Because biodiversity supports all life on earth
 Because biodiversity can contribute to us being able to see more plant and animal species
 Because nature, in itself, has a right to exist
 Because future generations must have the same opportunities that we have had

Higher rated:

Because biodiversity makes the landscape more beautiful to look at
 Because biodiversity increases the joy of experiencing nature
 Because biodiversity gives us nature experiences we could not otherwise have
 Because biodiversity makes nature a little more enchanting
 Because biodiversity can contribute to our physical and mental health

Lower rated:

Because biodiversity can improve nature's ability to resist and adapt to change
 Because humans have a responsibility to protect biodiversity
 Because biodiversity, in itself, is valuable - regardless of what we humans think
 Because it may be necessary for human survival
 Because the fact that biodiversity exists is valuable to me – even without it being experienced
 Because it is valuable to me that others can benefit from biodiversity

Lowest rated:

Because we do not know the consequences of losing biodiversity
 Because we do not know what biodiversity can contribute with the future
 Because it is important for our Danish culture and identity
 Because it is important that there are areas where people do not come

P4		P1	P2	P3
4	*	2	3	3
4	*	0	0	1
3		0	4	3
3	*	0	0	0
2	*	-3	-3	-3
1	*	-3	-1	0
1	*	-2	-3	0
0	*	-4	-2	-1
0		0	-1	-2
2		2	2	2
1		1	4	2
-1	*	0	2	4
-1	*	4	1	1
-2		-1	0	0
-2	*	-1	-2	-1
-3	*	3	0	4
-3	*	1	-1	0
-4		-4	-4	-4
-4	*	-2	1	-2