**Supplementary material** for

Viirret et al.

“*Ecosystem services at the Archipelago Sea Biosphere Reserve in Finland*

*– a visitor perspective*”

Example photographs of the habitats





Questionnaire form for structured interviews

Personal information

Gender  Male

Female

Year of birth \_\_\_\_\_\_\_

Education  Primary school

Vocational training

Secondary/high school graduate

University degree

No degree

Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Do you live in Finland  Yes

No

Municipality (if you live in Finland): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Home country (if you live abroad): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

If you do not live in Finnish Archipelago Sea area, how many times per year you visit the area?

0-1

2-5

6-10

over 10

If you do not live in Finnish Archipelago Sea area, how long do you stay at the area per year (estimate roughly the average time)?

0-1 weeks

2-4 weeks

1-2 months

2-4 months

over 4 months

Do you or your family have a summer residence in the Archipelago Sea area?  Yes

No

Do you have a boat or an access to a boat?  Yes

No

Do you work or study in the Archipelago Sea area?  Yes

No

Which seasons of the year you visit the Archipelago Sea area?  Spring

Summer

Fall

Winter

All seasons

What is your level of knowledge of the Archipelago Sea area?  Very good

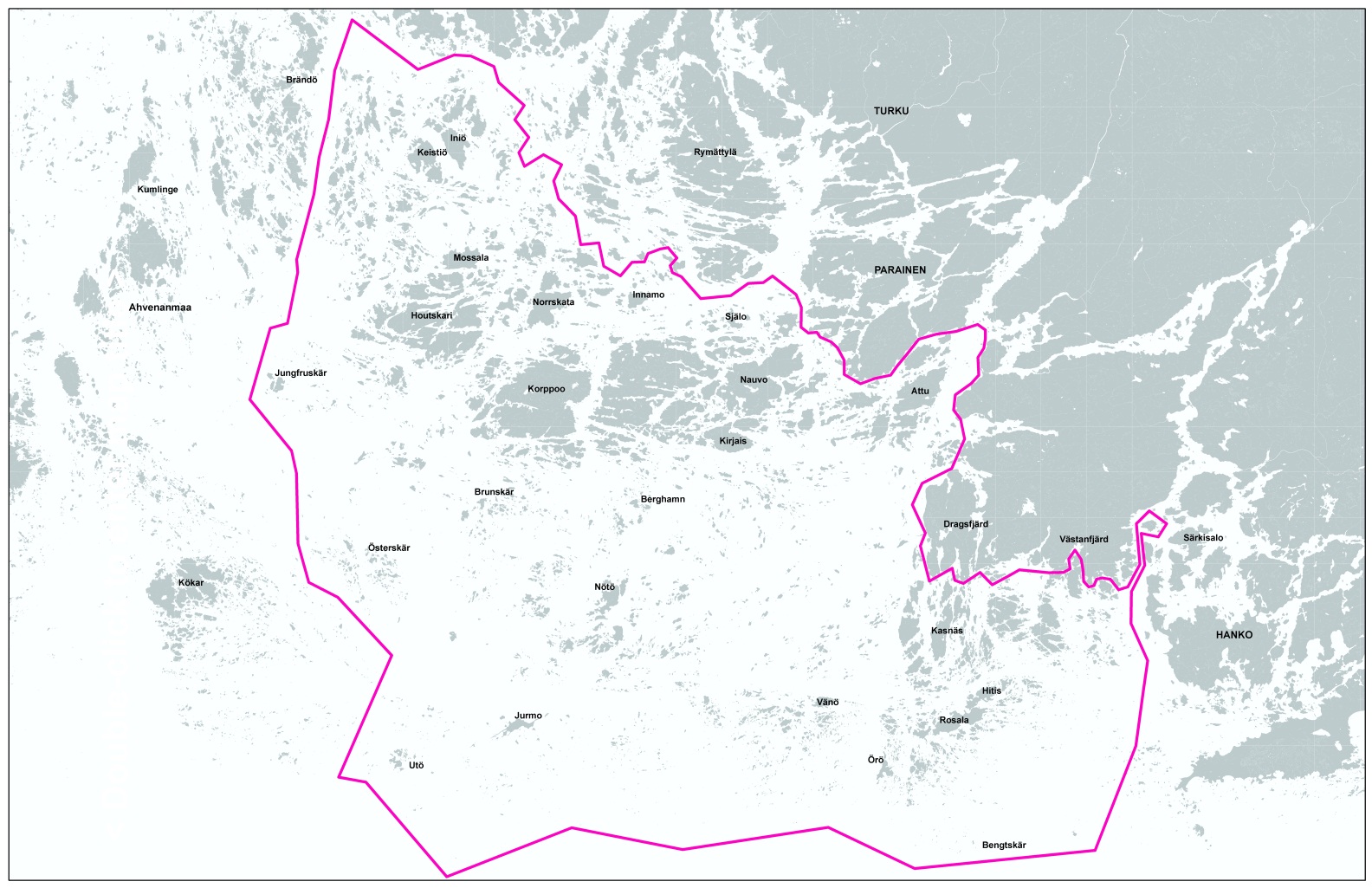
Good

Moderate

Weak

Very weak

Where do you regularly move while at the Archipelago Sea area? Indicate this to the below map by drawing. If you usually visit/move at multiple places, mark the three most important ones. The pink line shows the borders of the Archipelago Biosphere Reserve.



What benefits and values different habitat types of the Archipelago Sea area offer to you?

What is your personal impression about the following habitat types in the Archipelago Sea area?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Negative | | Somewhat negative | I cannot say | Somewhat positive | Positive |
|  |  | |  |  |  |  |
| Bladder wrack | |  |  |  |  |  |
| Bird islet | |  |  |  |  |  |
| Sand beach | |  |  |  |  |  |
| Reed bed | |  |  |  |  |  |
| Seaside meadow | |  |  |  |  |  |
| Dry meadow | |  |  |  |  |  |
| Pasture meadow | |  |  |  |  |  |
| Herb-rich forest | |  |  |  |  |  |
| Juniper thicket | |  |  |  |  |  |
|  | | | | | | |

How important are the following benefits/values in your own life?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Not  important | | Slightly important | Neutral | Somewhat important | Very important |
|  |  | |  |  |  |  |
| Hunting and fishing | |  |  |  |  |  |
| Berry, mushroom and vegetation harvesting | |  |  |  |  |  |
| Energy production | |  |  |  |  |  |
| Quality of water and soil | |  |  |  |  |  |
| Scenery | |  |  |  |  |  |
| Cultural value | |  |  |  |  |  |
| Recreational value | |  |  |  |  |  |
| Plant and animal species richness | |  |  |  |  |  |
|  | | | | | | |

Benefits and values of specific habitat types

**Juniper thicket**

Dense juniper shrubberies on open moraine islands and on top of rocks and moraine hillocks. Ground cover is insubstantial, species adjusted to dry and nutrient-poor soil.

I have seen this habitat type in the Archipelago Sea area

I have not seen this habitat type in the Archipelago Sea area (you can still answer the questions with the help of photographs and habitat description).

How important is this habitat type as a producer of the following benefits/values? Answer according to your personal perception, based on your own experience.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Not  important | | Slightly important | I cannot say | Somewhat important | Very important |
|  |  | |  |  |  |  |
| Hunting and fishing | |  |  |  |  |  |
| Berry, mushroom and/or vegetation harvesting | |  |  |  |  |  |
| Energy production | |  |  |  |  |  |
| Quality of water and soil | |  |  |  |  |  |
| Aesthetic scenery | |  |  |  |  |  |
| Cultural heritage | |  |  |  |  |  |
| Recreational value | |  |  |  |  |  |
| Plant and animal species richness | |  |  |  |  |  |
| Something else, what?  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |  |  |  |  |  |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |  |  |  |  |  |
|  | | | | | | |

**Wood-pastures and wooded meadows**

Semi-natural grasslands and pastures with sparsely scattered tree cover and park-like appearance. Wood-pastures often occur on stony soils in slopes or other rugged terrains. Crowns of pollarded trees in wooded meadows are densely branched as a result of foliage harvesting.

I have seen this habitat type in the Archipelago Sea area

I have not seen this habitat type in the Archipelago Sea area (you can still answer the questions with the help of photographs and habitat description).

How important is this habitat type as a producer of the following benefits/values? Answer according to your personal perception, based on your own experience.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Not  important | | Slightly important | I cannot say | Somewhat important | Very important |
|  |  | |  |  |  |  |
| Hunting and fishing | |  |  |  |  |  |
| Berry, mushroom and/or vegetation harvesting | |  |  |  |  |  |
| Energy production | |  |  |  |  |  |
| Quality of water and soil | |  |  |  |  |  |
| Aesthetic scenery | |  |  |  |  |  |
| Cultural heritage | |  |  |  |  |  |
| Recreational value | |  |  |  |  |  |
| Plant and animal species richness | |  |  |  |  |  |
| Something else, what?  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |  |  |  |  |  |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |  |  |  |  |  |
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**Broadleaf forest**

Mixed-species deciduous forests on eutrophic soils. Ground cover has many herbaceous plants and grasses. There is quite a lot of shrubs and the tree age and species composition is variable.

I have seen this habitat type in the Archipelago Sea area

I have not seen this habitat type in the Archipelago Sea area (you can still answer the questions with the help of photographs and habitat description).

How important is this habitat type as a producer of the following benefits/values? Answer according to your personal perception, based on your own experience.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Not  important | | Slightly important | I cannot say | Somewhat important | Very important |
|  |  | |  |  |  |  |
| Hunting and fishing | |  |  |  |  |  |
| Berry, mushroom and/or vegetation harvesting | |  |  |  |  |  |
| Energy production | |  |  |  |  |  |
| Quality of water and soil | |  |  |  |  |  |
| Aesthetic scenery | |  |  |  |  |  |
| Cultural heritage | |  |  |  |  |  |
| Recreational value | |  |  |  |  |  |
| Plant and animal species richness | |  |  |  |  |  |
| Something else, what?  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |  |  |  |  |  |
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**Sand beach**

Baltic Sea beaches consisting of fine and coarse-grained sand and gravel, often in bays. Vegetation is treeless.

I have seen this habitat type in the Archipelago Sea area

I have not seen this habitat type in the Archipelago Sea area (you can still answer the questions with the help of photographs and habitat description).

How important is this habitat type as a producer of the following benefits/values? Answer according to your personal perception, based on your own experience.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Not  important | | Slightly important | I cannot say | Somewhat important | Very important |
|  |  | |  |  |  |  |
| Hunting and fishing | |  |  |  |  |  |
| Berry, mushroom and/or vegetation harvesting | |  |  |  |  |  |
| Energy production | |  |  |  |  |  |
| Quality of water and soil | |  |  |  |  |  |
| Aesthetic scenery | |  |  |  |  |  |
| Cultural heritage | |  |  |  |  |  |
| Recreational value | |  |  |  |  |  |
| Plant and animal species richness | |  |  |  |  |  |
| Something else, what?  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |  |  |  |  |  |
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**Coastal reedbed**

Common reed vegetation on seashores and in open and sheltered habitats further from the waterfront. Based on soft (clay and silt) soils.

I have seen this habitat type in the Archipelago Sea area

I have not seen this habitat type in the Archipelago Sea area (you can still answer the questions with the help of photographs and habitat description).

How important is this habitat type as a producer of the following benefits/values? Answer according to your personal perception, based on your own experience.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Not  important | | Slightly important | I cannot say | Somewhat important | Very important |
|  |  | |  |  |  |  |
| Hunting and fishing | |  |  |  |  |  |
| Berry, mushroom and/or vegetation harvesting | |  |  |  |  |  |
| Energy production | |  |  |  |  |  |
| Quality of water and soil | |  |  |  |  |  |
| Aesthetic scenery | |  |  |  |  |  |
| Cultural heritage | |  |  |  |  |  |
| Recreational value | |  |  |  |  |  |
| Plant and animal species richness | |  |  |  |  |  |
| Something else, what?  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |  |  |  |  |  |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |  |  |  |  |  |
|  | | | | | | |

**Dry meadow**

Open meadows with herbaceous vegetation on dry sand, gravel, or moraine soil. Dry meadows are poor in nutrients, and the vegetation is low.

I have seen this habitat type in the Archipelago Sea area

I have not seen this habitat type in the Archipelago Sea area (you can still answer the questions with the help of photographs and habitat description).

How important is this habitat type as a producer of the following benefits/values? Answer according to your personal perception, based on your own experience.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Not  important | | Slightly important | I cannot say | Somewhat important | Very important |
|  |  | |  |  |  |  |
| Hunting and fishing | |  |  |  |  |  |
| Berry, mushroom and/or vegetation harvesting | |  |  |  |  |  |
| Energy production | |  |  |  |  |  |
| Quality of water and soil | |  |  |  |  |  |
| Aesthetic scenery | |  |  |  |  |  |
| Cultural heritage | |  |  |  |  |  |
| Recreational value | |  |  |  |  |  |
| Plant and animal species richness | |  |  |  |  |  |
| Something else, what?  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |  |  |  |  |  |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |  |  |  |  |  |
|  | | | | | | |

**Seaside meadow**

Open meadows with relatively low, continuous herbaceous plant and grass coverage. Seaside meadows are located between the highest and the lowest waterfront. They are nearly treeless and free of shrubs.

I have seen this habitat type in the Archipelago Sea area

I have not seen this habitat type in the Archipelago Sea area (you can still answer the questions with the help of photographs and habitat description).

How important is this habitat type as a producer of the following benefits/values? Answer according to your personal perception, based on your own experience.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Not  important | | Slightly important | I cannot say | Somewhat important | Very important |
|  |  | |  |  |  |  |
| Hunting and fishing | |  |  |  |  |  |
| Berry, mushroom and/or vegetation harvesting | |  |  |  |  |  |
| Energy production | |  |  |  |  |  |
| Quality of water and soil | |  |  |  |  |  |
| Aesthetic scenery | |  |  |  |  |  |
| Cultural heritage | |  |  |  |  |  |
| Recreational value | |  |  |  |  |  |
| Plant and animal species richness | |  |  |  |  |  |
| Something else, what?  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |  |  |  |  |  |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |  |  |  |  |  |
|  | | | | | | |

**Bladder wrack**

Continuous *Fucus* vegetation from shallow waters to 5 meters’ deep sea water.

I have seen this habitat type in the Archipelago Sea area

I have not seen this habitat type in the Archipelago Sea area (you can still answer the questions with the help of photographs and habitat description).

How important is this habitat type as a producer of the following benefits/values? Answer according to your personal perception, based on your own experience.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Not  important | | Slightly important | I cannot say | Somewhat important | Very important |
|  |  | |  |  |  |  |
| Hunting and fishing | |  |  |  |  |  |
| Berry, mushroom and/or vegetation harvesting | |  |  |  |  |  |
| Energy production | |  |  |  |  |  |
| Quality of water and soil | |  |  |  |  |  |
| Aesthetic scenery | |  |  |  |  |  |
| Cultural heritage | |  |  |  |  |  |
| Recreational value | |  |  |  |  |  |
| Plant and animal species richness | |  |  |  |  |  |
| Something else, what?  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |  |  |  |  |  |
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|  | | | | | | |

**Bird islet**

Small islets and open parts of larger islands colonized by seabirds. Nesting places on rock or moraine; species’ preferences range from open rocks to steep slopes and scattered, woody islands.

I have seen this habitat type in the Archipelago Sea area

I have not seen this habitat type in the Archipelago Sea area (you can still answer the questions with the help of photographs and habitat description).

How important is this habitat type as a producer of the following benefits/values? Answer according to your personal perception, based on your own experience.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Not  important | | Slightly important | I cannot say | Somewhat important | Very important |
|  |  | |  |  |  |  |
| Hunting and fishing | |  |  |  |  |  |
| Berry, mushroom and/or vegetation harvesting | |  |  |  |  |  |
| Energy production | |  |  |  |  |  |
| Quality of water and soil | |  |  |  |  |  |
| Aesthetic scenery | |  |  |  |  |  |
| Cultural heritage | |  |  |  |  |  |
| Recreational value | |  |  |  |  |  |
| Plant and animal species richness | |  |  |  |  |  |
| Something else, what?  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |  |  |  |  |  |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |  |  |  |  |  |
|  | | | | | | |