

Information and terms about the geographic database of natural birch land in Iceland

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Natural birchland covers all natural birch in Iceland, including birch shrub and birch forest. The coverage is the result of mapping carried out between 2010 and 2014 by employees of the Forestry of the State. The project was overseen by the Research Station of Forestry at Mógilsá. Birch was mapped either on top of aerial/satellite images or by walking lines with GPS devices. A field computer was used for this purpose, where lines were drawn, and attributes were given for each mapped area.

The FAO international definition was used for birch mapping: <http://www.fao.org/docrep/005/y4171e/y4171e10.htm>

- Minimum mapping unit: 0.5 ha
- Minimum crown cover within a mapping unit: 10% crown cover
- Separation between birch thicket and birch forest is 2 m.

A distinction is made between the current height and the potential height of birchland when it reaches full growth. The reason for recording the height of full-grown birchland is based on the definitions of the Food and Agriculture Organization (FAO) regarding forested land, where full-grown forestland is always considered. The area of birch forests, according to FAO, is therefore referenced to the height classification of full-grown birchland. The current area of birch forests is classified based on the current height of birch.

The data is freely available for use, and it is allowed to reuse the data for profit purposes, such as for geographical analysis or map processing. It is not permitted to sell the base data to third parties unless an agreement to that effect is made with the Forestry of the State. When data on natural birchland in Iceland is used, the following text must be included: "Based on data from the Forestry of the State - Research Station of Forestry, Mógilsá." This is in accordance with the terms of free data from the National Land Survey of Iceland.

Here is a brief description of property registration in the database (Column headings in the table structure):

svaedilD1: Total Area (national section)

svaedilD2: Area (municipality)

svaedilD3: Unit (land)

svaedilD4: Layer (field)

Vegetation Type: Classification according to the National Institute of Statistics (NÍ) based on the Classification of Vegetation of the Icelandic Institute of Natural History (available on the National Land Survey's website).

C5: Birch shrub (average height in the plot <2m)

C6: Birch and willow shrub (average height in the plot <2m)

C10: Birch forest (average height in the plot >2m)

This refers to the status of birch vegetation at the time of mapping.

Full-Grown Height: Classification according to the register 510 for forestry (register on the National Land Survey's website).

1: Birch scrub: full-grown height <0.5m

2: Willow forest: full-grown height 0.5-2m

3: Low forest: full-grown height 2-5m

4: Tall forest: full-grown height >5m

This involves assessing the possible average height of mature birch in mapped plots. It is a visual assessment by mapping personnel, where the potential height is estimated with reference to the height of adjacent trees and environmental conditions.

Current Tree Height (Dominant): Classification according to register 510 for forestry (register on the National Land Survey's website)

1: <0.5m

2: 0.5-1.3m

3: 1.3-2m

4: 2-3m

5: 3-5m

6: >5m

This describes the current dominant height of the prevailing birch tree layer.

Current Tree Height (Undergrowth): Classification according to register 510 for forestry (register on the National Land Survey's website)

- 1: <0.5m
- 2: 0.5-1.3m
- 3: 1.3-2m
- 4: 2-3m
- 5: 3-5m
- 6: >5m

This describes the current height of the understory birch tree layer.

Crown Cover of Birch Trees: Classification according to register 510 for forestry (register on the National Land Survey's website)

- 10: 10% crown cover
- 20: 20% crown cover
- 30: 30% crown cover
- 40: 40% crown cover
- 50: 50% crown cover
- 60: 60% crown cover
- 70: 70% crown cover
- 80: 80% crown cover
- 90: 90% crown cover
- 100: 100% crown cover

This represents the total crown cover of birch in mapped plots. Crown cover is the percentage that the tree crowns cover compared to vertical projection. Crown cover is assessed visually by mapping personnel.

Crown Cover of Birch Trees (Dominant): Classification according to register 510 for forestry (register on the National Land Survey's website)

- 10: 10% crown cover
- 20: 20% crown cover
- 30: 30% crown cover
- 40: 40% crown cover
- 50: 50% crown cover
- 60: 60% crown cover
- 70: 70% crown cover
- 80: 80% crown cover
- 90: 90% crown cover
- 100: 100% crown cover

This represents the prevailing crown cover of the dominant birch tree layer in mapped plots.

Crown Cover of Birch Trees (Undergrowth): Classification according to register 510 for forestry (register on the National Land Survey's website)

- 10: 10% crown cover
- 20: 20% crown cover
- 30: 30% crown cover
- 40: 40% crown cover
- 50: 50% crown cover
- 60: 60% crown cover
- 70: 70% crown cover
- 80: 80% crown cover
- 90: 90% crown cover

100: 100% crown cover

This represents the crown cover of the understory birch tree layer in mapped plots.

Crown Cover of Birch Trees (Full Grown): Classification according to register 510 for forestry (register on the National Land Survey's website)

10: 10% crown cover

20: 20% crown cover

30: 30% crown cover

40: 40% crown cover

50: 50% crown cover

60: 60% crown cover

70: 70% crown cover

80: 80% crown cover

90: 90% crown cover

100: 100% crown cover

This represents the crown cover of the birch tree layer when full growth is achieved in mapped plots.

Age Category (Dominant): Classification according to register 510 for forestry (register on the National Land Survey's website)

10: Young (<15 years)

20: Rather young (15-30 years)

45: In growth phase (30-60 years)

80: Mature (60-100 years)

100: Old (>100 years)

This assesses the age of birch trees in the dominant tree layer. The age assessment is not based on samples; rather, it is a visual assessment by mapping personnel in the field.

Age Category (Undergrowth): Classification according to register 510 for forestry (register on the National Land Survey's website)

10: Young (<15 years)

20: Rather young (15-30 years)

45: In growth phase (30-60 years)

80: Mature (60-100 years)

100: Old (>100 years)

This assesses the age of birch trees in the undergrowth tree layer. Similar to the dominant layer, the age assessment is not based on samples; rather, it is a visual assessment by mapping personnel in the field.

Vegetation Type:

S1: Vegetation Type 1

S2a: Vegetation Type 2a

S2b: Vegetation Type 2b

S3a: Vegetation Type 3a

S3b: Vegetation Type 3b

S4: Birch Moor

This classification is based on register 510 for forestry (register on the National Land Survey's website). "Birch Moor" refers to botanically rich vegetation in forests, visually assessed by mapping personnel.

Land Type:

1: Sparse vegetation dry land <30%

2: Dry land

3: Wetland

4: Most advanced wetland

5: Settlement

6: Garden

7: Most advanced garden

8: Cultivated land

9: Most advanced cultivated land

10: Cultivated forest

This classification is based on register 510 for forestry (register on the National Land Survey's website). It represents the original land type of the area where birch plants have been sown. It is a visual assessment by mapping personnel.

Source Date:

Recording according to the Icelandic standard ÍST120:2012. Date of mapping.