



# The last British–Irish ice sheet

GeographyReviewExtras

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Explore the British–Irish ice sheet that existed during the last glaciation, with ice flowing outwards from domes and ice divides over Ireland and Scotland

### Extent, thickness and ice flow directions

The ice sheet grew to over 1,500 metres thick some 25,000 years ago (25 ka) — subsuming our mountains — and was about a quarter of the size of the present-day Greenland Ice Sheet. Once melted, it raised sea level by nearly 2 metres. We now live on a landscape largely shaped by this ice sheet. The flow directions and extent of the ice sheet are visualised in Figure 1. This map matches well with tens of thousands of glacial landforms such as drumlins and moraines that we have mapped.

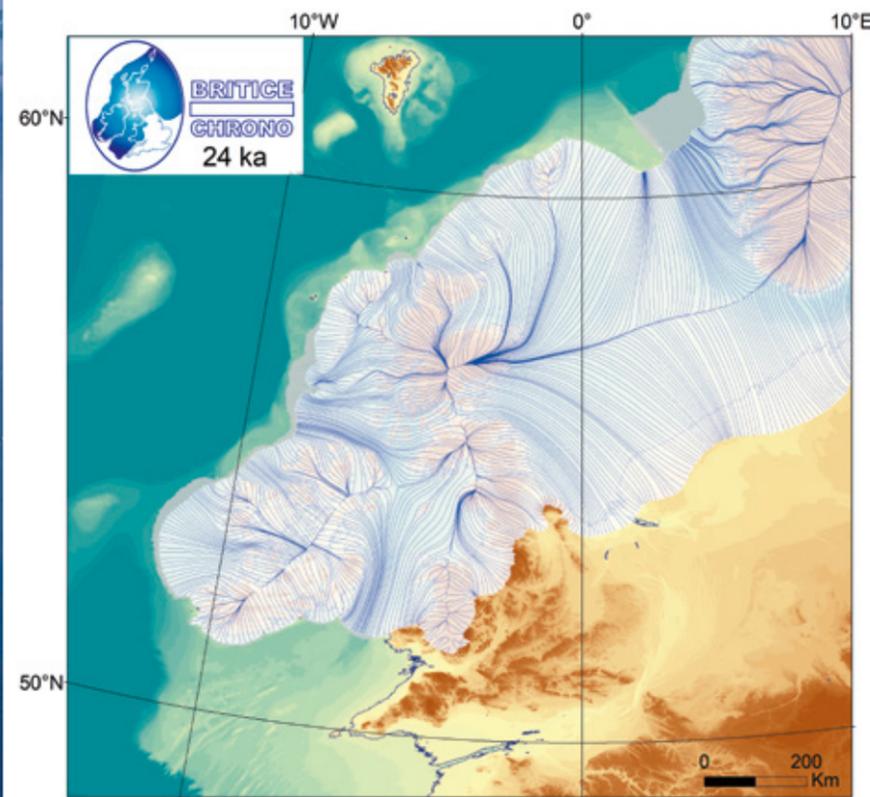


Figure 1 Flow directions and ice extent 24,000 years ago

### How long has our landscape, soil and vegetation had to develop since the ice left?

Figure 2 shows the duration of land exposure since the ice melted away.

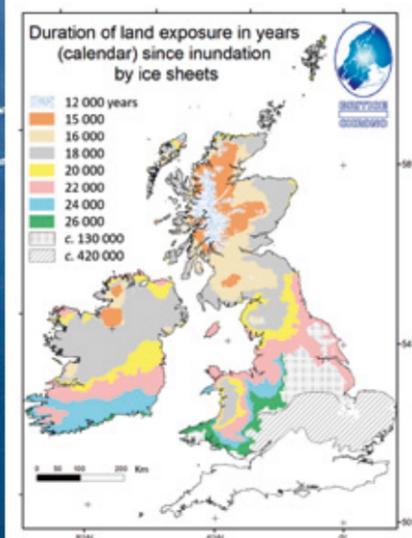


Figure 2 Duration of land exposure in years (calendar) since inundation by ice sheets

### Weight of the ice sheet depressed the land surface

Early in the last glaciation, enormous ice sheets grew over Canada and Scandinavia, storing huge volumes of water and making sea level much (>100 m) lower. By 31,000 years ago (Figure 3a) most of the North Sea became dry land while the British and Irish ice sheets were still

small (indicated by the green lines). Later in the glacial period and by 24,000 years ago (Figure 3b), the now much larger and heavier British–Irish Ice Sheet had weighed down the land surface locally — by glacio-isostatic loading — such that much of it was below sea level. Such ice sheets grounded below sea level are vulnerable to rapid collapse and most

of the ice had gone by 14,000 years ago. Slowly the land surface rebounded upwards, relaxing to today’s topography.

### Map and movie downloads

Maps of glacial landforms and GIS data can be viewed or downloaded at [www.briticemap.org](http://www.briticemap.org).

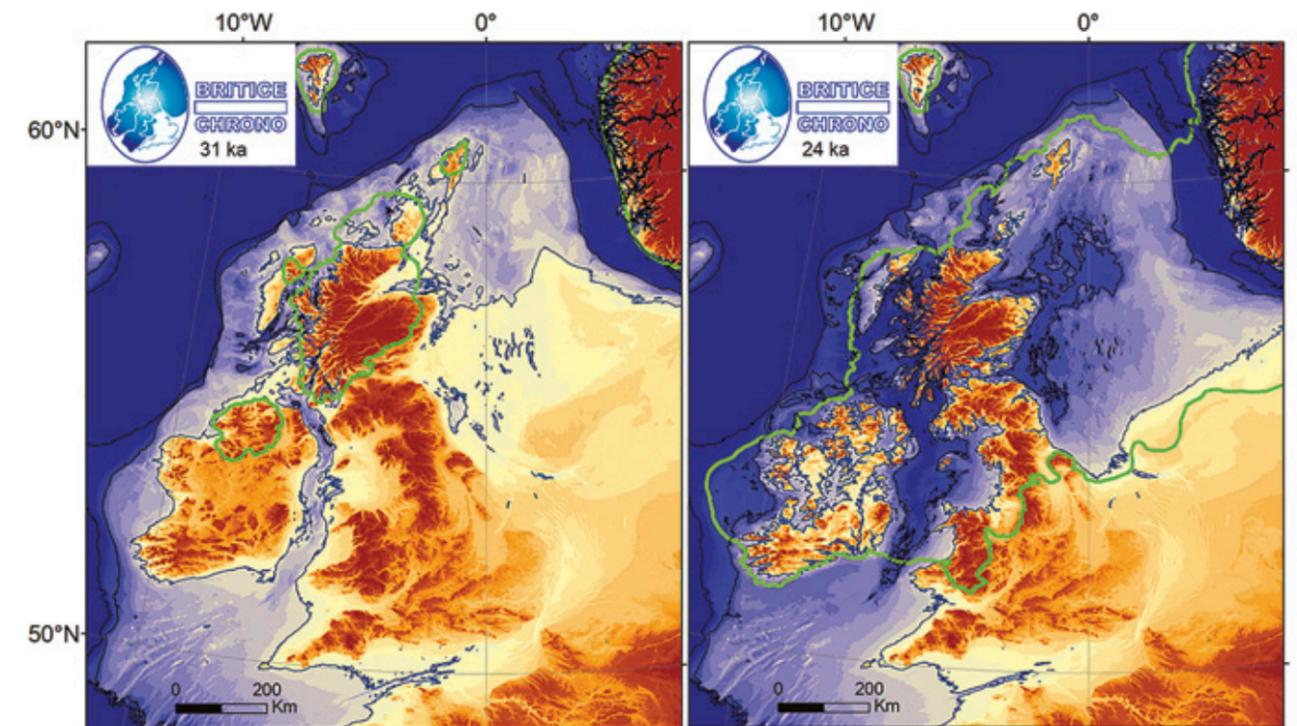


Figure 3 Ice sheet extent a) 31,000 years ago b) 24,000 years ago

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