



**A-level
GEOGRAPHY**

Paper 1 Physical Geography

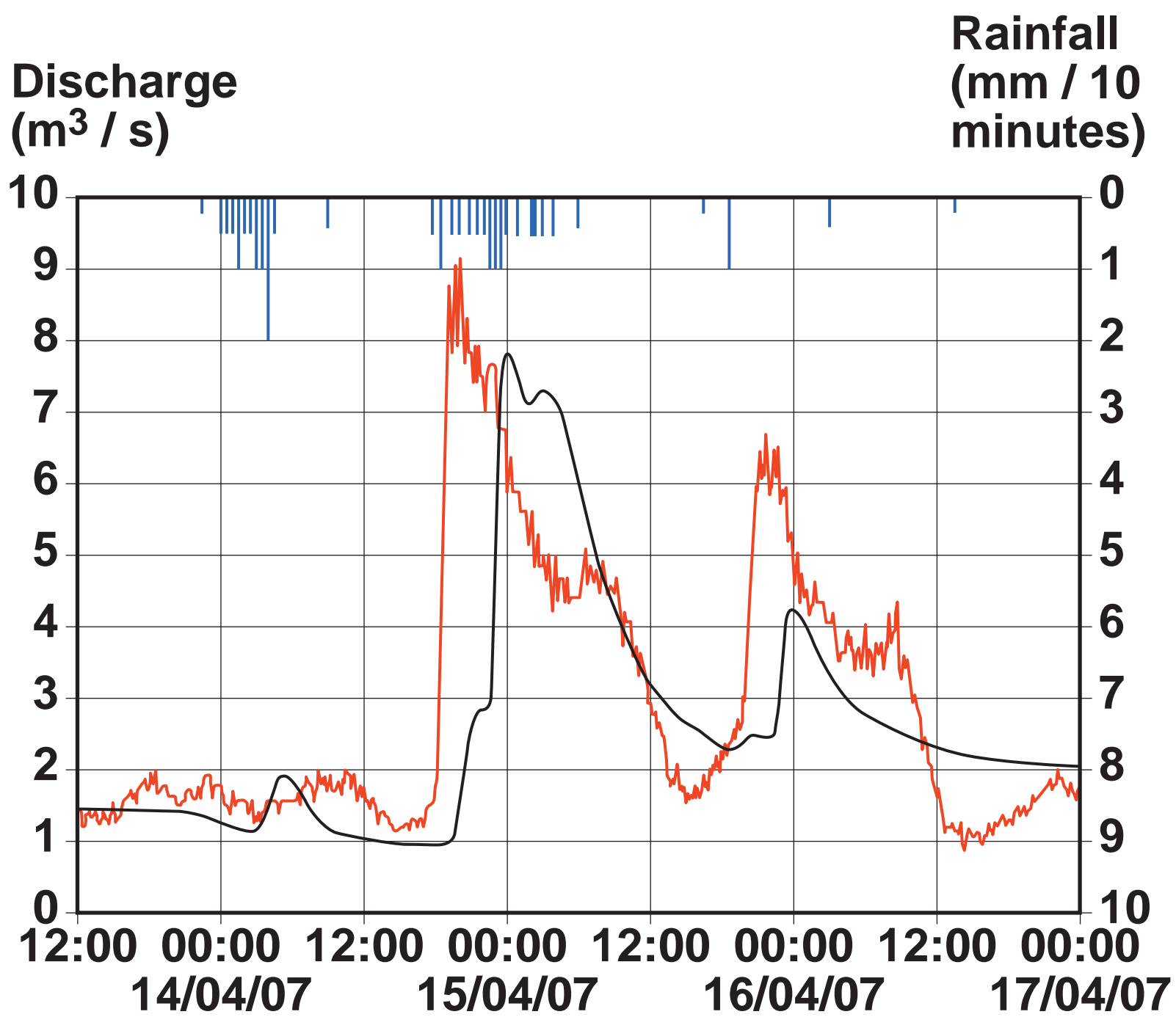
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FIGURE 1 – For use with Question 1



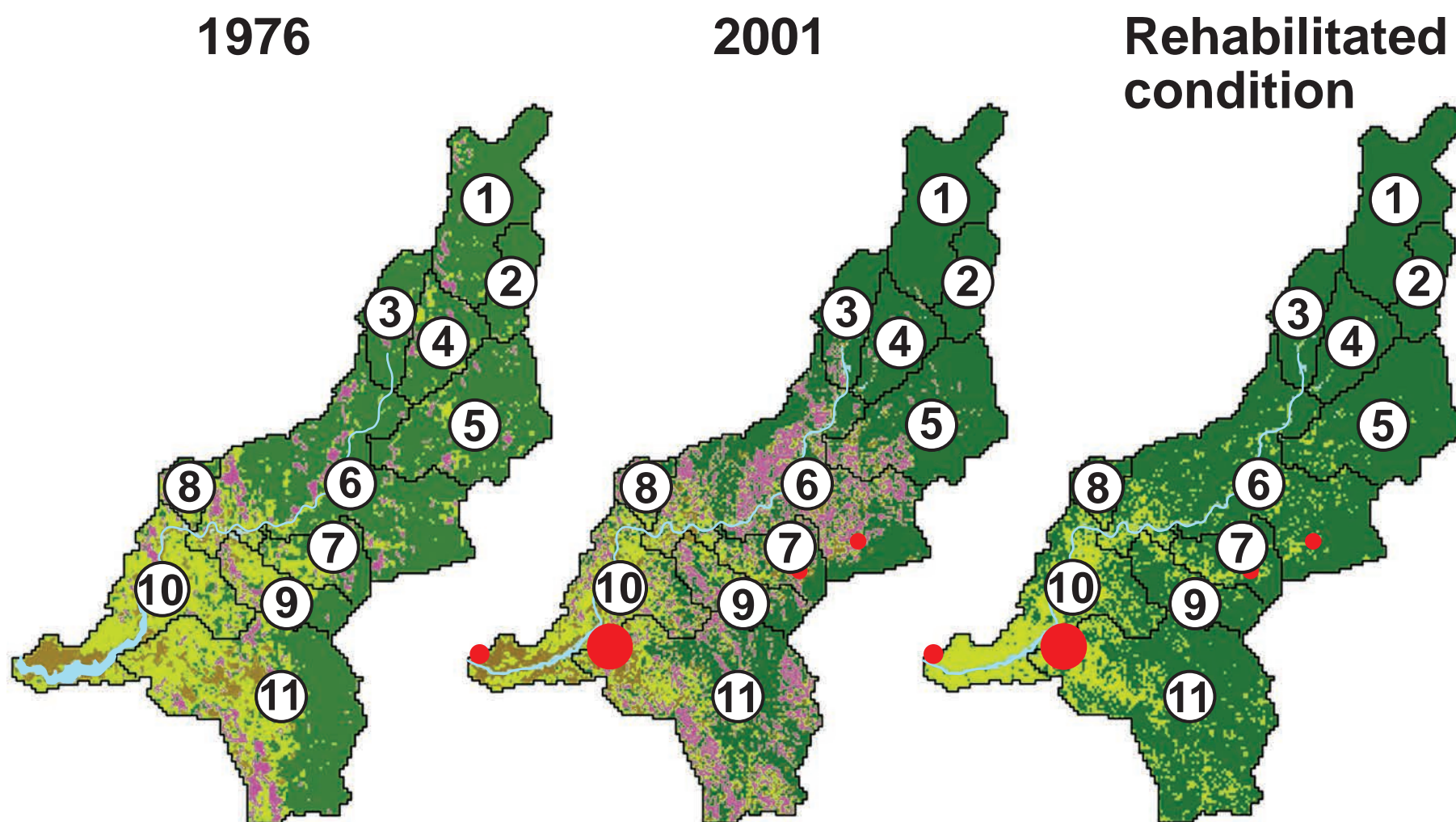
KEY

- Measured hydrograph
- Simulated hydrograph
- | Rainfall

[Turn over]

FIGURE 2a – For use with Question 1

Changing vegetation cover in the Taguibo Watershed, from 1976 to 2001, and how the area could be rehabilitated with natural vegetation



KEY

① Zones within the watershed

■ Bare soil

■ Forest

■ Built-up

■ Grassland

■ Water

■ Mixed vegetation

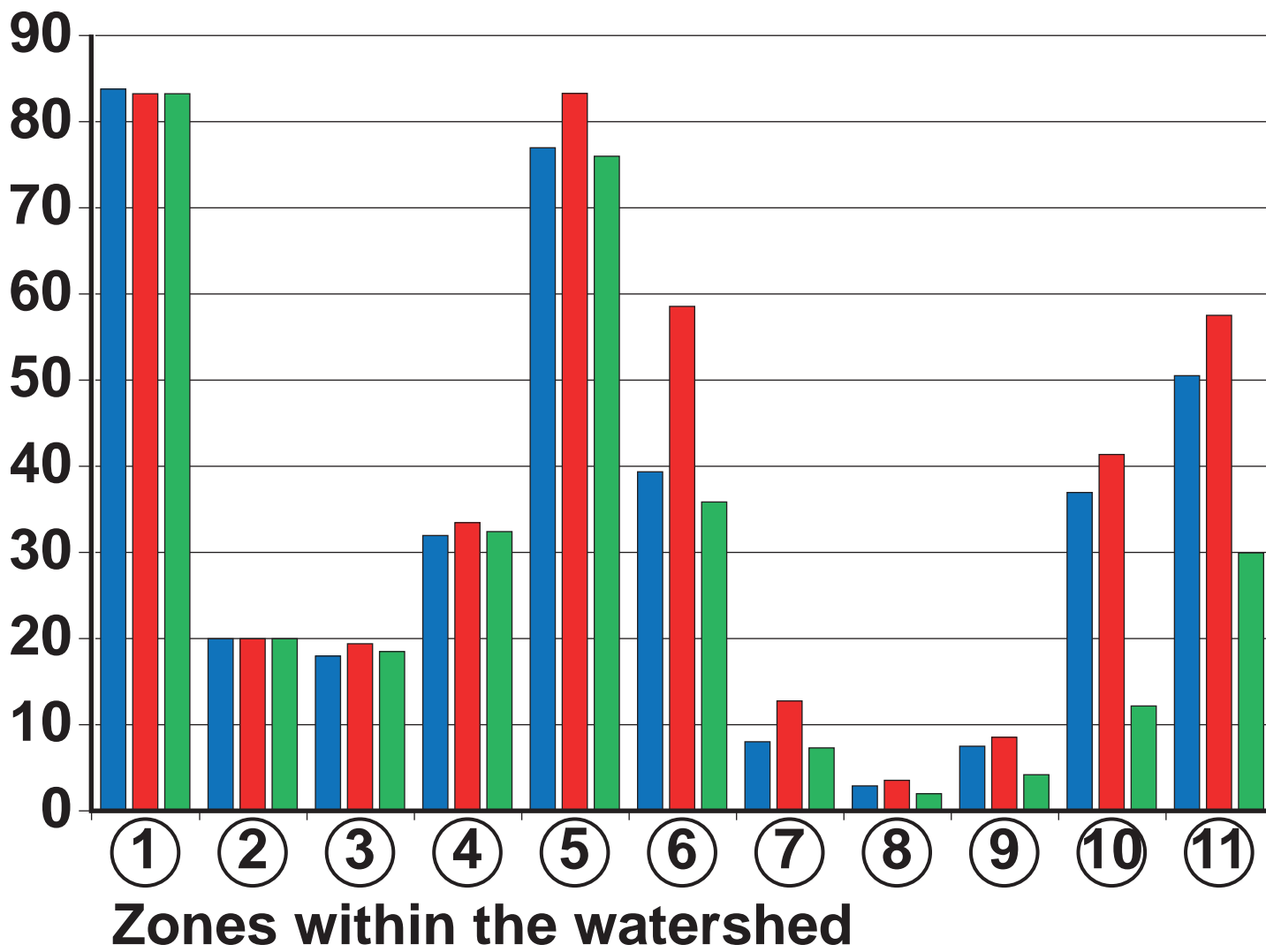
N
↑

0 5 km

FIGURE 2b – For use with Question 1

Possible impact of a storm in 2007 on runoff volume in the Taguibo Watershed for each situation shown in FIGURE 2a

**25–27 June 2007
runoff volume
(10^3 m^3)**



KEY

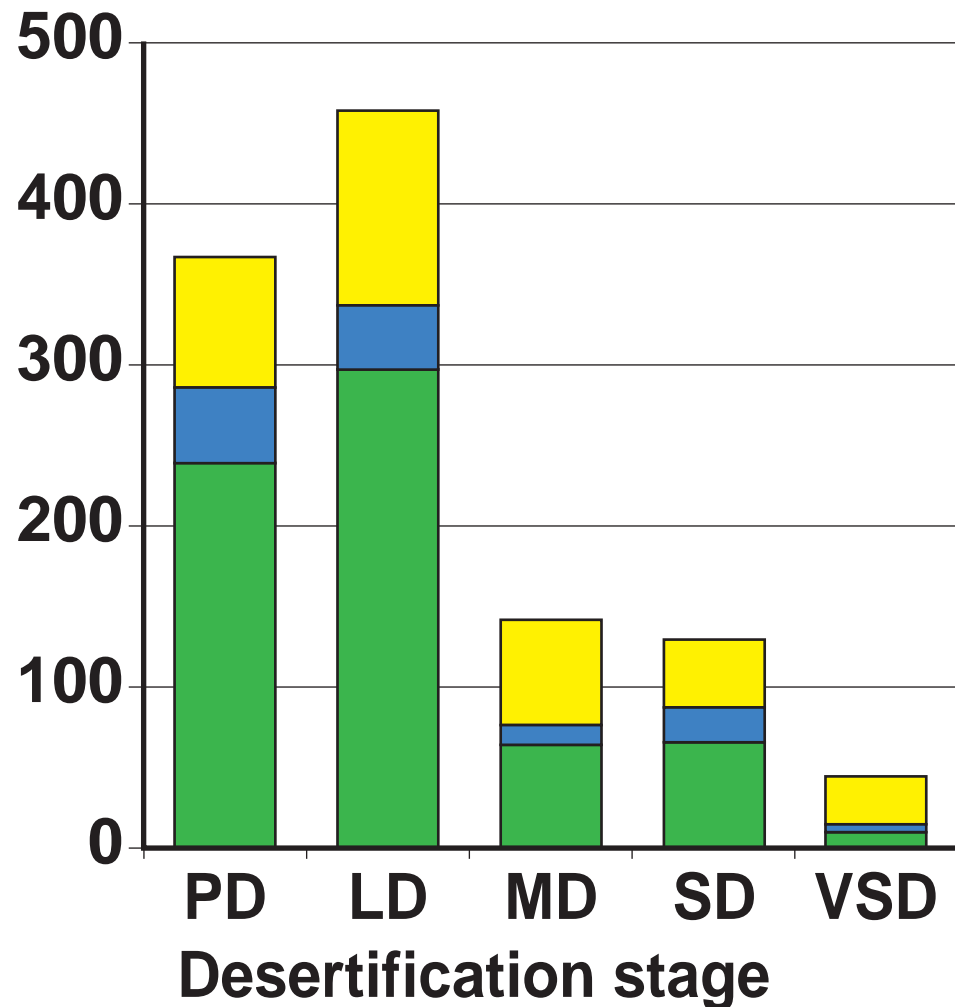
■ 1976 ■ 2001 ■ Rehabilitated condition

[Turn over]

FIGURE 3a – For use with Question 2

Primary productivity in five study areas of Northern China at different stages of aeolian desertification

**Primary
productivity
(g/m²)**



KEY

■ Above ground

■ Litter layer

■ Below ground

PD Potential for desertification

LD Light desertification

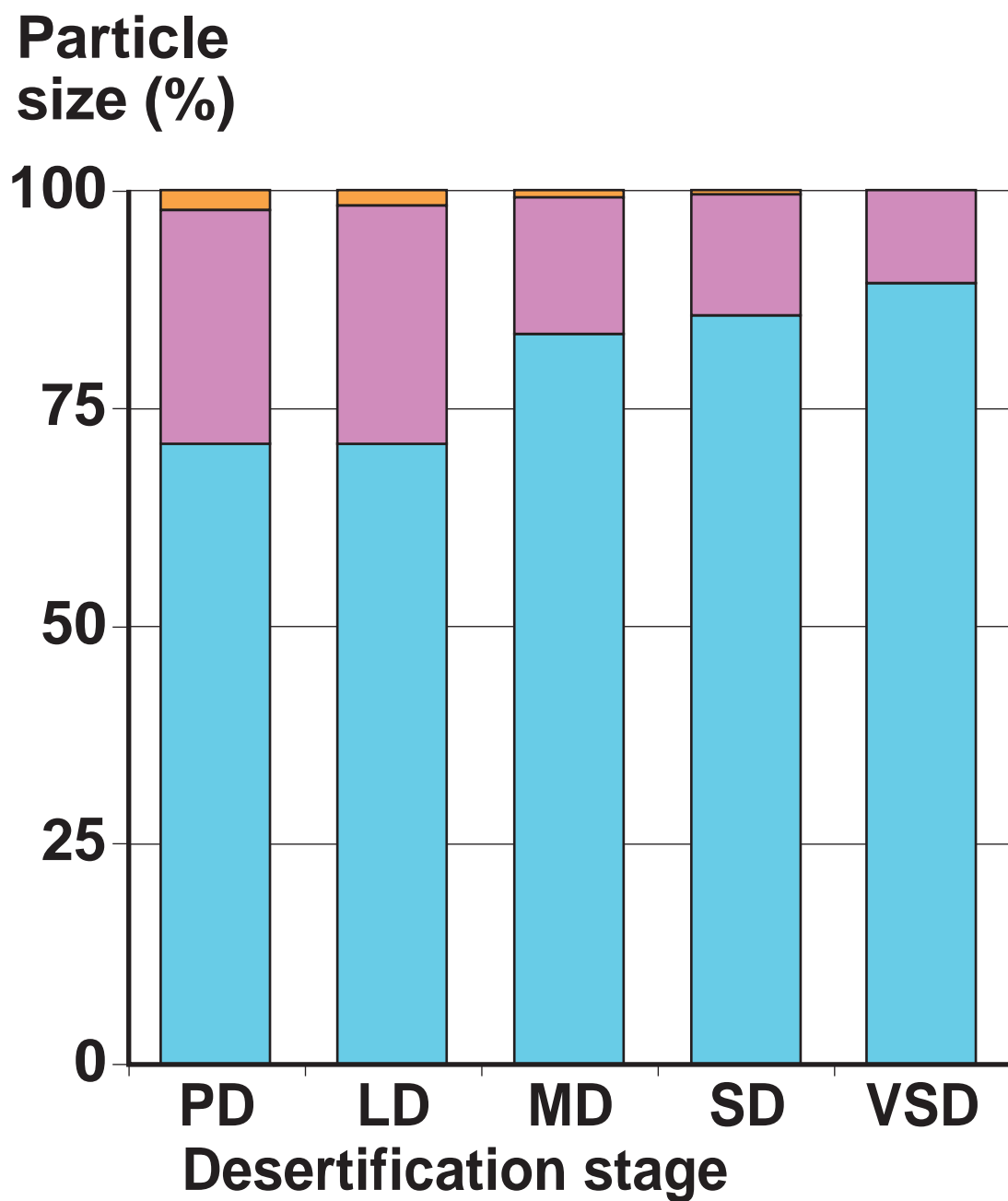
MD Moderate desertification

SD Severe desertification

VSD Very severe desertification

FIGURE 3b – For use with Question 2

Percentages of soil particle size in the same five study areas



KEY

 **Clay and silt**

 **Fine sand**

 **Coarse sand**

PD Potential for desertification

LD Light desertification

MD Moderate desertification

SD Severe desertification

VSD Very severe desertification

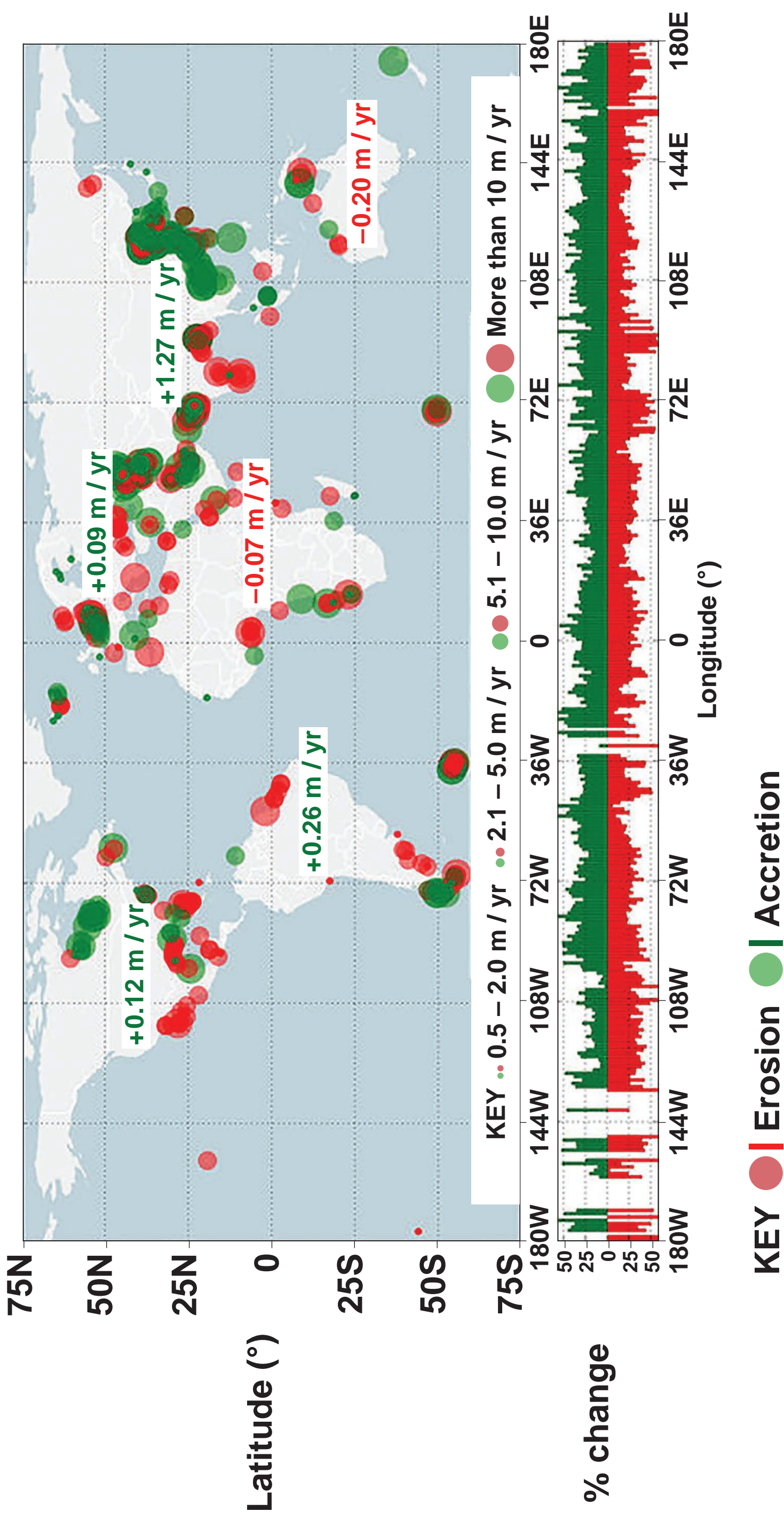
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FIGURE 4 – For use with Question 2

Note: Uluru is one of Australia's most recognisable natural landmarks. The sandstone formation stands 348 m high, rising 863 m above sea level, with most of its bulk lying underground. It has a total circumference of 9.4 km. Uluru is dominantly composed of coarse-grained sandstone and other rock fragments including basalt and granite.

FIGURE 5 – For use with Question 3

Distribution of beach erosion and accretion from 1984 to 2016



The bar graph beneath the map presents the relative occurrence of eroding and accreting sandy shorelines per degree of longitude. The numbers presented on the map represent the average change rate for all sandy shorelines per continent.

[Turn over]

FIGURE 6 – For use with Question 3

Note: In New Zealand, there is a variety of coastal dune landforms. The dunes in FIGURE 6 are relatively small shore-parallel foredunes located immediately behind the beach. Dunes can be made up of a variety of surface dune types. They can form hills and ridges which can rise to a hundred metres or more above the shoreline and represent long-term accumulations of large volumes of sand.

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FIGURE 7a – For use with Question 4

Number of days where ablation exceeded accumulation

**Greenland cumulative melt days
1 January–31 December 2017**

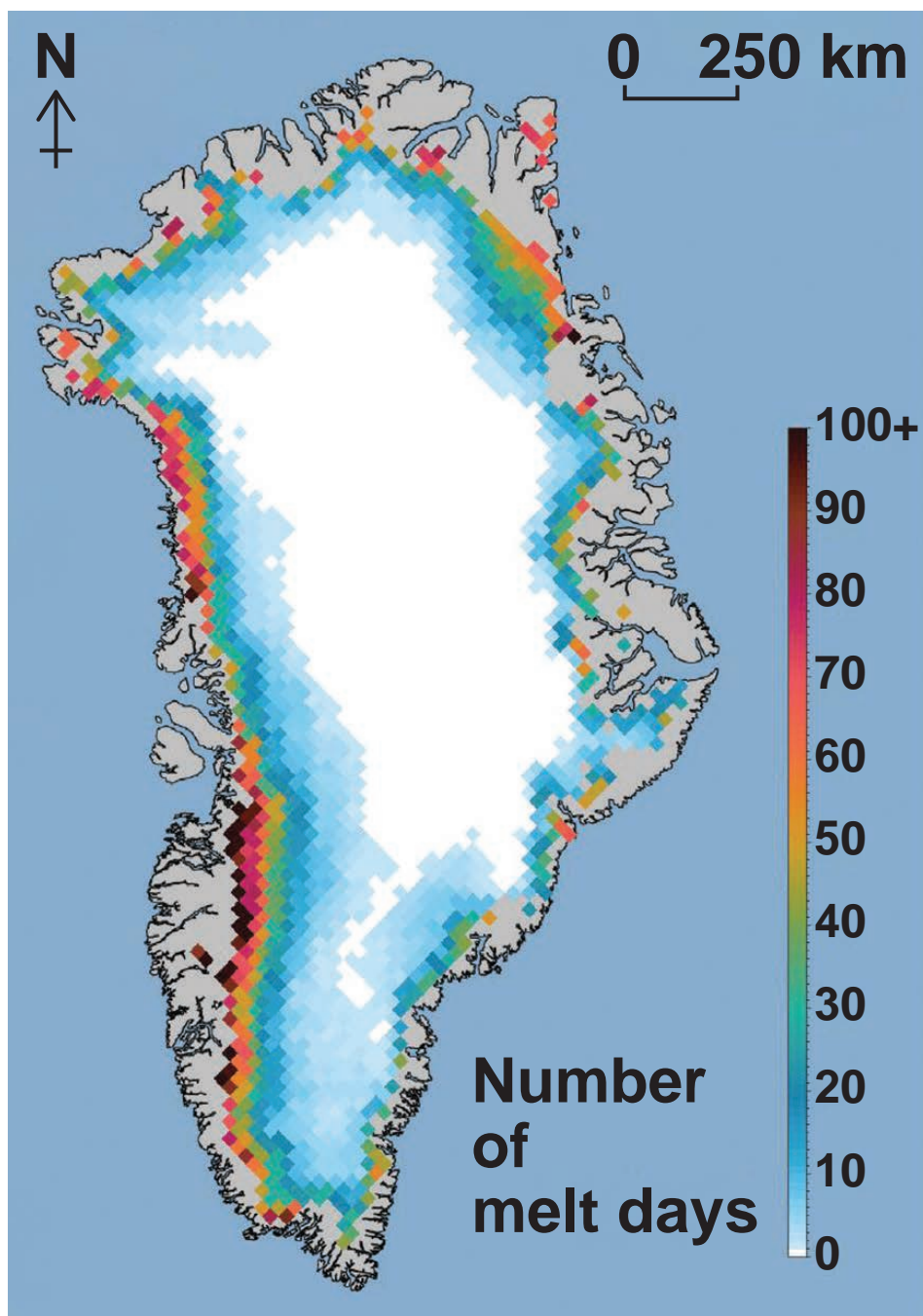


FIGURE 7b – For use with Question 4

**Number of melting days
difference from the 1981–2010
average**

**Greenland melt day anomaly
1 January – 31 December 2017**

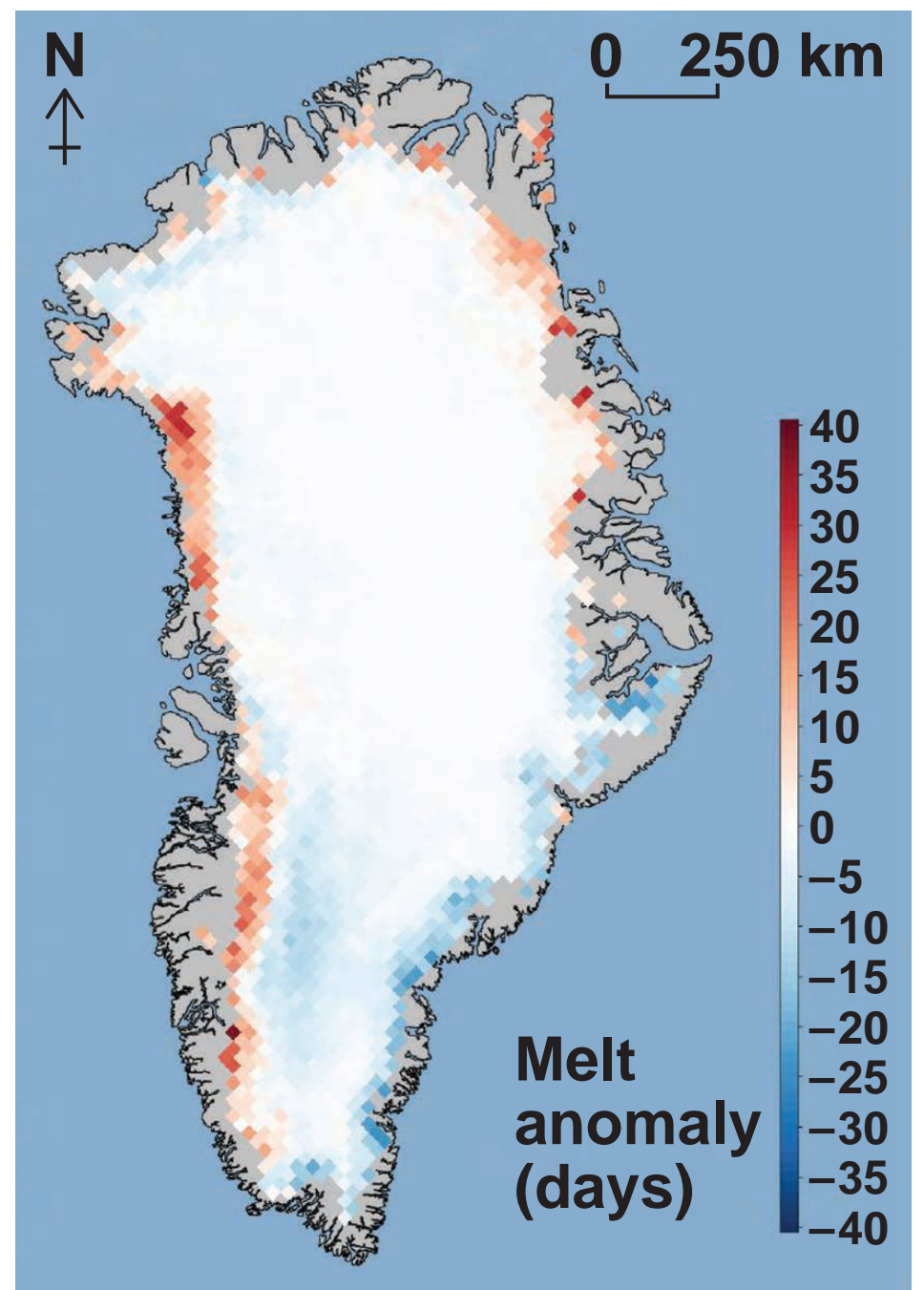
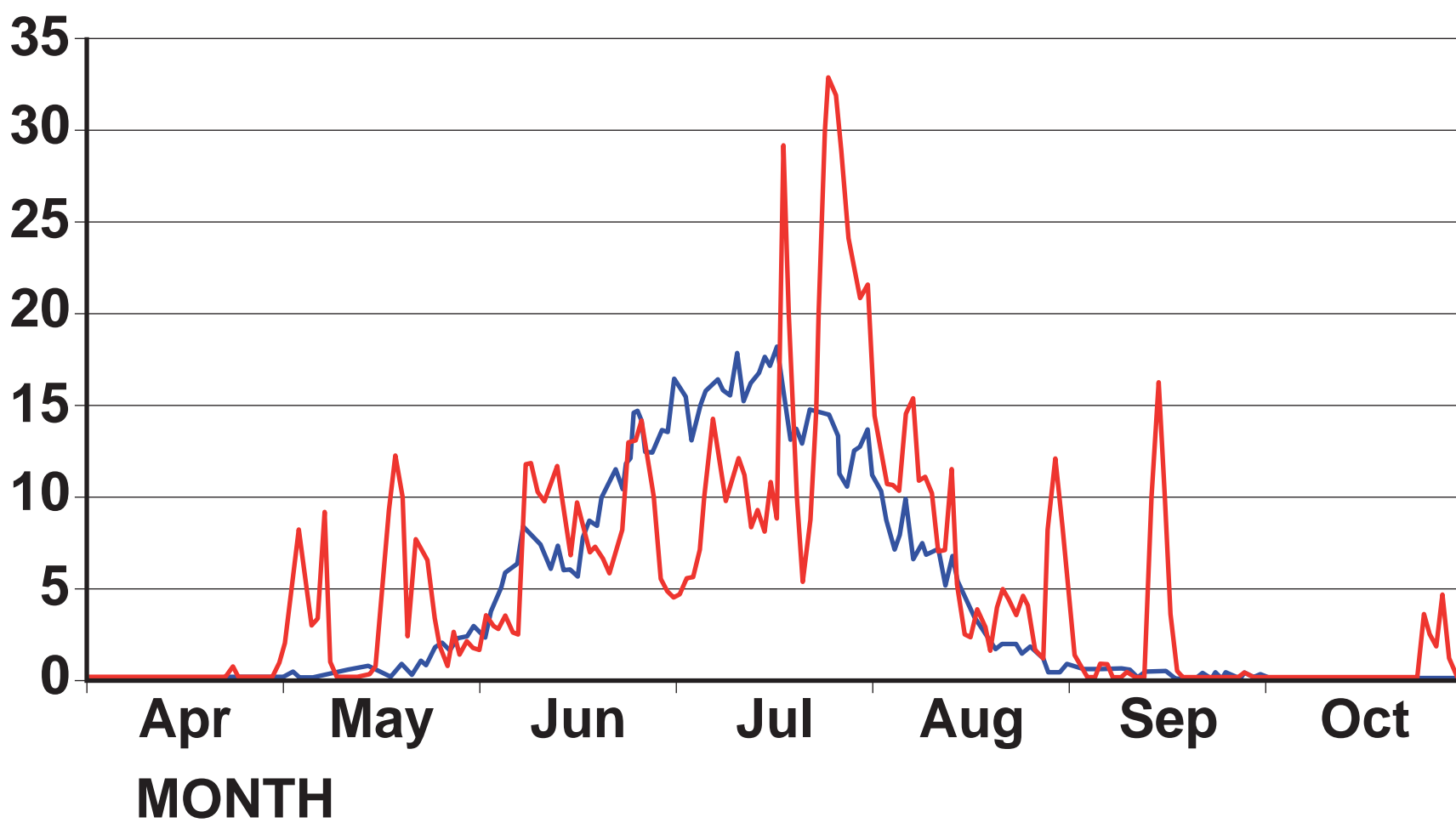


FIGURE 7c – For use with Question 4

Percentage of Greenland ice sheet experiencing melting in 2017, compared to 1981–2010 median

Greenland melt extent, 2017

**Melt
extent
(%)**

**KEY**

— 1981 to 2010 average

— 2017 melt percentage

[Turn over]

FIGURE 8 – For use with Question 4

Note: The aerial photograph was taken in late summer, near Tuktoyaktuk. It shows a largely flat area, in a coastal region near the Beaufort Sea in the Canadian Arctic. The mound in the image rises up to 36 metres above sea level. Local climate has had a powerful impact on the landscape, which is characterised by a high water table and the presence of numerous lakes.

FIGURE 9a – For use with Question 5

Data related to the eruption of Kīlauea Volcano, 24 May 2018

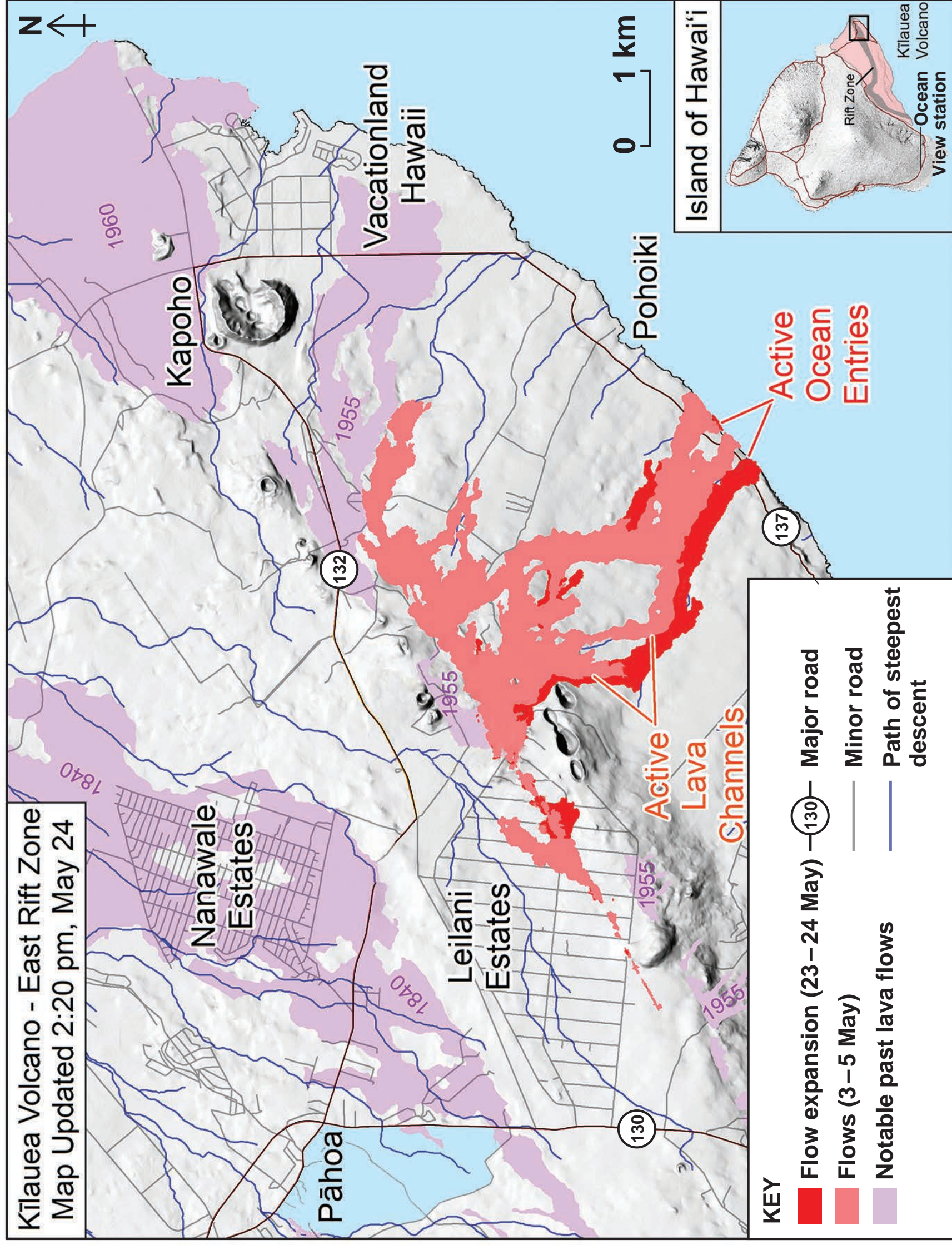


FIGURE 9b – For use with Question 5

Satellite image of the eruption of Kīlauea Volcano, 24 May 2018

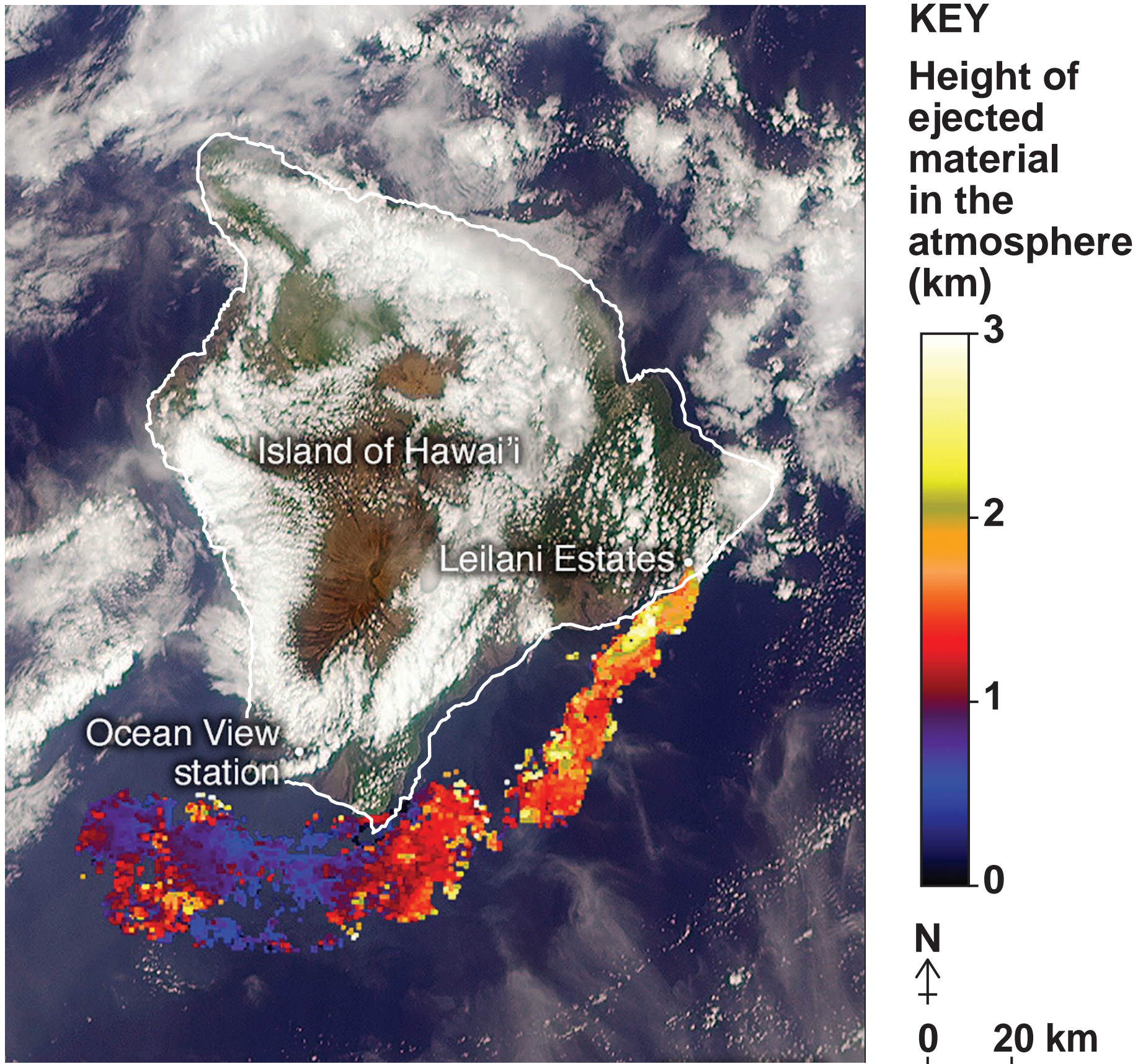
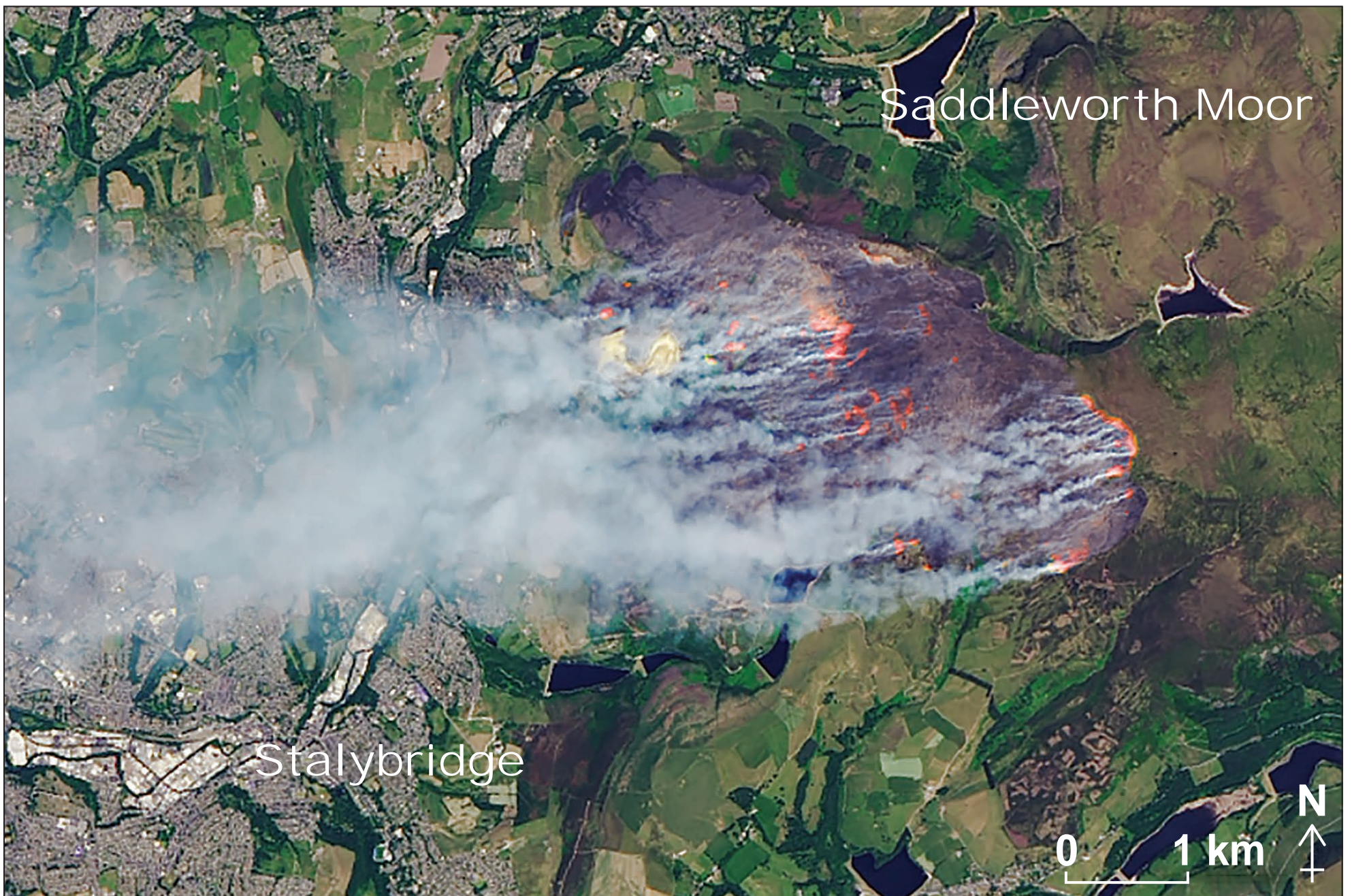


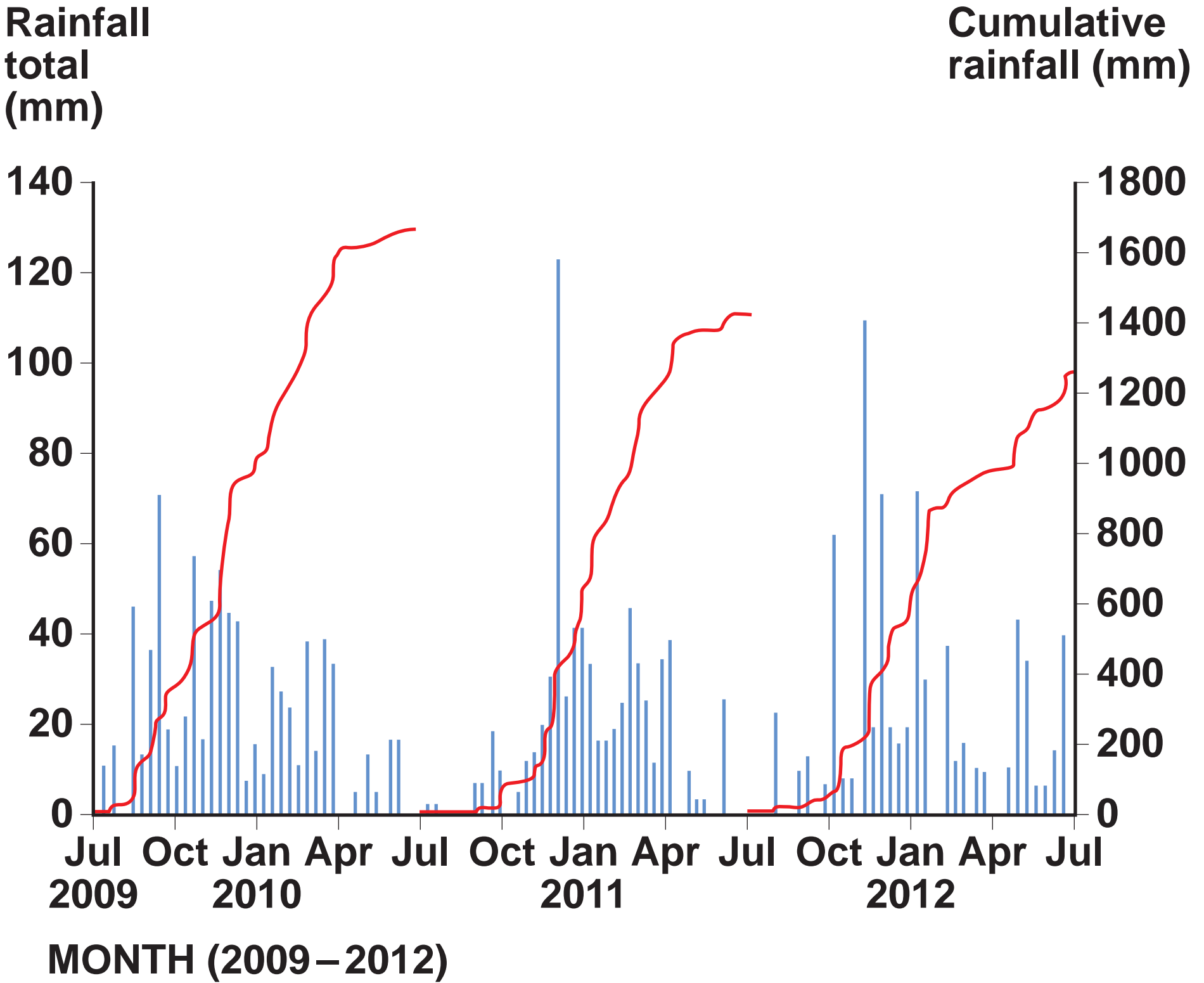
FIGURE 10 – For use with Question 5

Note: Saddleworth Moor is an upland area north east of Manchester. The soils are composed of peat. In June 2018, there was a heatwave which was accompanied by virtually no rain and a dry wind for several weeks. Around 150 soldiers and firefighters were called in to tackle the blaze. The blaze lasted for weeks and may have been started deliberately.

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FIGURE 11a – For use with Question 6

Rainfall totals and cumulative rainfall in a woodland savanna (cerrado), south-east Brazil, 2009–2012

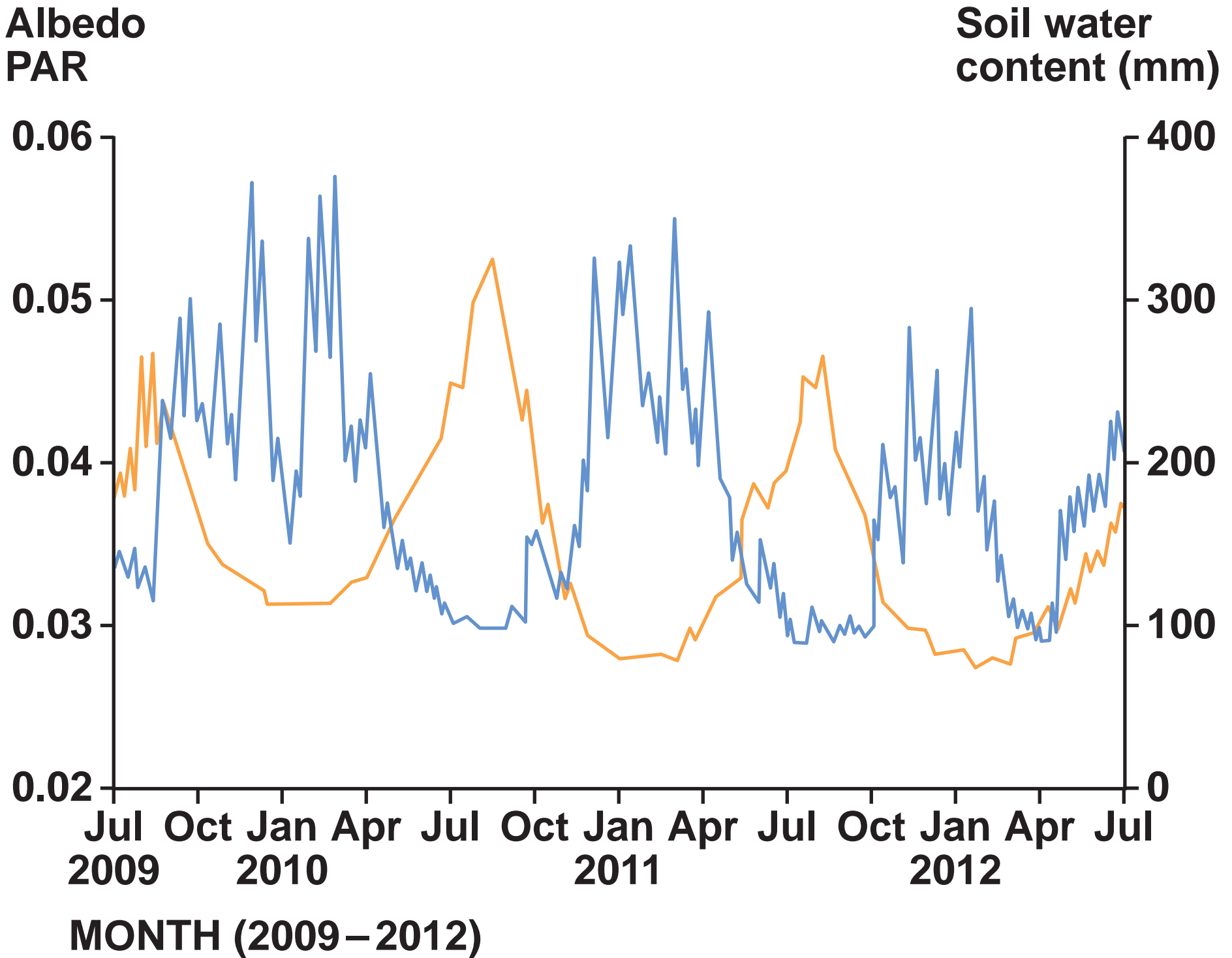


KEY

| Rainfall total — Cumulative rainfall

FIGURE 11b – For use with Question 6

Relationship between albedo and soil water content over the same time period and same area as in FIGURE 11a



KEY

— Albedo PAR — Soil water content

Note: Albedo PAR is a measure of the reflectivity of a surface. Darker surfaces absorb sunlight and warm up. Lighter surfaces reflect the sun's energy and stay cooler. A lower PAR score indicates a darker surface and vice versa.

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FIGURE 12a – For use with Question 6

Vegetation succession in moorland environments in the UK

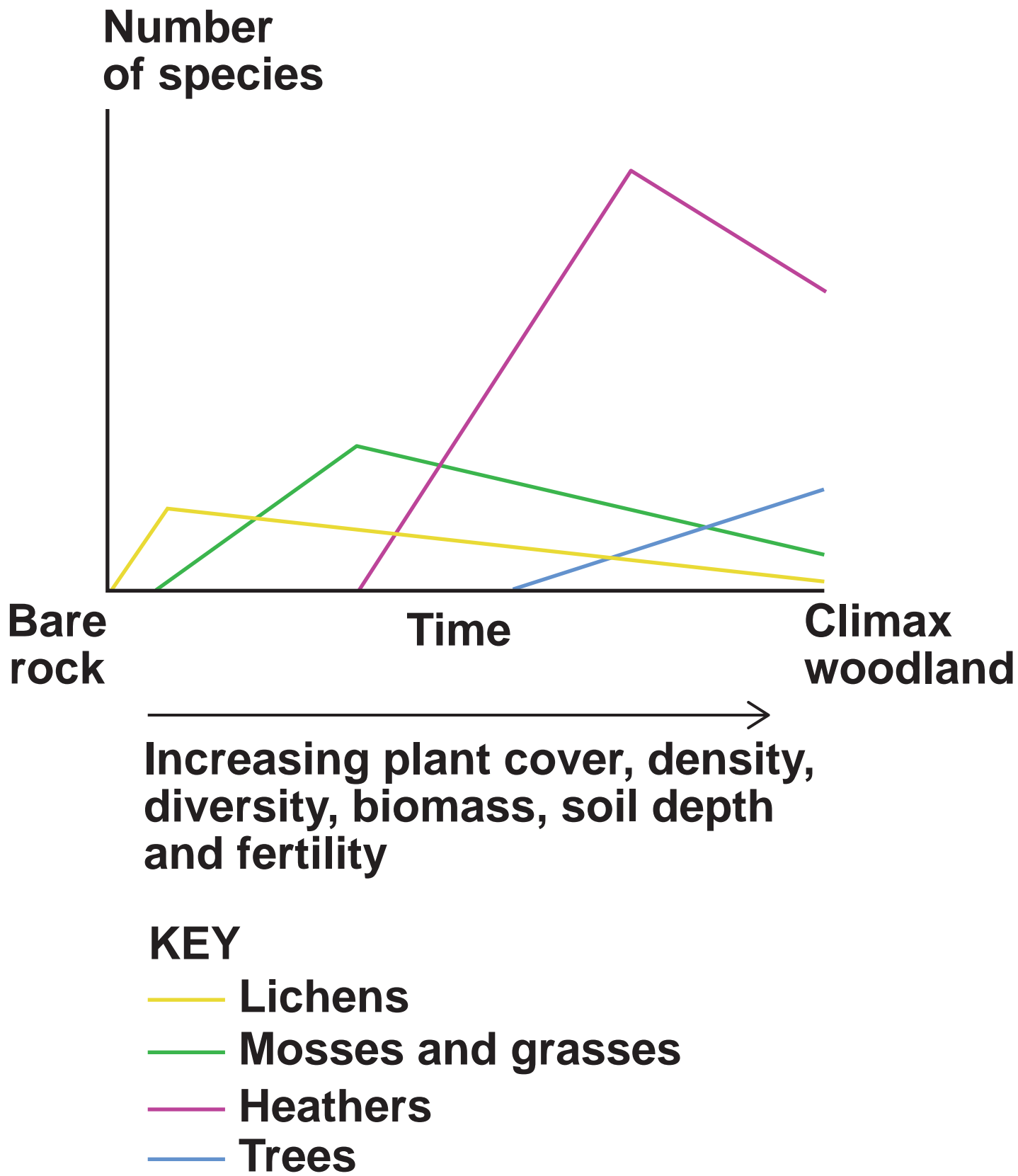


FIGURE 12b – For use with Question 6

Moorland landscape in the UK



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