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Title: *Community assembly of recently emerged nunataks, Iceland*

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Glaciers are retreating worldwide and since the end of the 19th century the Vatnajökull glacier in Iceland has decreased in volume by about 10%. Consequently, nunataks (ice-free areas in glacial surroundings) have increased both in number and size, so each nunatak is subjected to primary community assembly. Community assembly takes place everywhere there is an invasion of species to a new or disturbed habitat. The community that develops at each location depends on what species reach the location and are able to establish. Successful establishment depends on both the abiotic environment, e.g. climate and water supplies, and the biotic environment, e.g. food resources.

To study the community assembly of nunataks, we sampled arthropods, identified vegetation, and measured environmental factors along transects within four nunataks (ice-free areas) in Vatnajökull glacier, extending from the youngest part of the nunatak to the older parts. Furthermore, sticky traps were located on the glacier and glacier foreland to catch potentially dispersing arthropods.

The nunataks are located within the hostile environment of a glacier, where a cold wind normally blows from the upper parts of the glacier down to the lowland. Despite of this, there was a frequent dispersal of organisms to the nunataks, and a community of invertebrates was found on each of the nunataks within a few years from deglaciation. These first colonisers mainly consisted of small, wingless invertebrates that fed on allochthonous material. When plants started to establish, more tropic groups could be added to the community, like herbivores and their predators.