

Ice Age survivors in Iceland

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Crymostygius thingvallensis, the only species in a recently described family of groundwater amphipods Crymostygiidae. Photograph by Thorkell Heidarsson

Many scientists believe that the ice ages exterminated all life on land and in freshwater in large parts of the Northern Hemisphere, especially on ocean islands such as Iceland.

Scientists at Holar University College and the University of Iceland have challenged that belief, at least when looking at groundwater animals. They have discovered two species of groundwater amphipods in Iceland that are the only animals species found solely in Iceland.

“These finding can only be explained by these animals surviving glaciations in some kind of refugium under the glaciers,” says Bjarni K. Kristjánsson, the scientist who found the species.

In an article in the August issue of *The American Naturalist*, they put forward strong support for their theory. “Groundwater amphipods are poor at dispersal, and can not be transported with birds or humans,” says Jörundur Svavarsson. One of these new species falls within a new family of amphipods, which indicates that the species has been a long time in Iceland.

“The time since the end of the last glaciation is not enough for a family to evolve,” says Svavarsson. Kristjánsson and Svavarsson find it likely that the amphipod came to Iceland as early as 30-40 million years ago, when the volcanic island was being formed.

“If our theory is right, we have discovered the oldest inhabitants of Iceland, and that can help us further understand how Iceland was formed,” says Kristjánsson.

Citation: Bjarni K. Kristjánsson and Jörundur Svavarsson, "Subglacial refugia in Iceland enabled groundwater amphipods to survive glaciations" *The American Naturalist* (2007) volume 170:292–296 DOI: 10.1086/518951

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