

Arctic reindeer cool with snow, but not rain, study says

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A reindeer walks on snow in Ny-Alesund in the Svalbard archipelago. Arctic reindeer have no problems with snowstorms but are badly affected by rain, a finding that has implications for assessing how climate change affects wildlife, a study says.

Arctic reindeer have no problems with snowstorms but are badly affected by rain, a finding that has implications for assessing how climate change affects wildlife, a study on Wednesday says.

Norwegian researchers looked at population figures for a well-studied species, the Svalbard reindeer (*Rangifer tarandus platyrhynchus*), which inhabits the island of Spitzbergen.

Over 17 years of observations, from 1995 to 2011, the number of calves per female fluctuated sharply according to [rainfall patterns](#) during the

November-April winter.

Similar rain-linked changes in population were found among a species called the sibling vole (*Microtus levis*), the only other herbivorous mammal on Spitzbergen.

The declines are attributed to a phenomenon called rain-on-snow, when rain percolates through the snow and then freezes on the ground.

This encloses heather, grass and other vegetation with a thick layer of ice, making it hard for the animals to eat.

The findings are important given that the Arctic circle is a hotspot for global warming, affecting not just overall temperatures but [weather patterns](#) too.

The study appears in *Biology Letters*, published by Britain's Royal Society.

The Svalbard reindeer is a subspecies of reindeer which is smaller than its cousins on mainland Europe because of the more meagre [food availability](#) of its habitat.

Males grow up to 90 kilos (198 pounds) and 1.6 metres (5.2 feet) long and females reach 70 kilos (154 pounds) and 1.5 metres (4.9 feet) in length, according to the Norwegian Polar Institute (www.npolar.no/en/species/svalbard-reindeer.html).

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