Research Highlights

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Shrinking sheep

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Wild sheep in Scotland are shrinking in part because of climate change, say scientists. The Soay sheep on the island of Hirta in the St Kilda archipelago have become five per cent smaller on average since 1985, despite evolutionary advantages favouring larger sheep.

Tim Coulson of Imperial College London and colleagues analysed female sheep's body weights and life histories over the last 24 years on the isolated island, which serves as a simple natural laboratory for environmental change and evolution. They found that although larger lambs with substantial fat supplies had better chances of surviving Hirta's harsh winters, the sheep's average size could not increase because of a counteracting 'young mum' effect: the youngest ewes bore lambs smaller than they themselves had been at birth. On top of that, more spindly lambs have been making it through to adulthood — probably because winters on Hirta have become shorter and milder, say the authors.

As warming has lifted selection pressure, population density has risen, leaving less grass to go around and lowering growth rates and body weights. The findings shed light on how climate change can play a role in altering animals' traits over a very short time.

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