

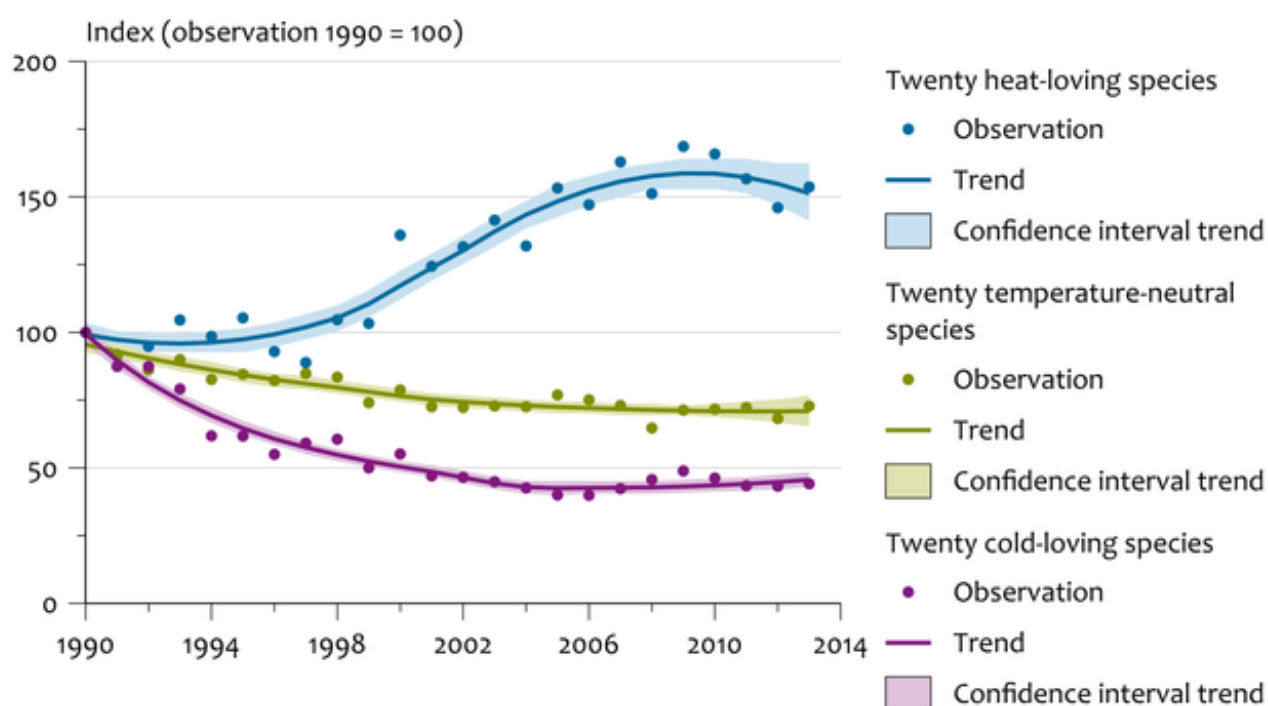
Effects of climate change on cold and heat-loving species, 1990-2013

Indicator | 10 March 2015

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The number of cold-loving species has been reduced in recent years, but the number of heat-loving species has grown. Numbers of temperature-neutral species have remained more or less stable. These trends appear to be related to climate change.

Effects of climate change on cold and heat-loving species



Source: NEM (PGO's, Statistics Netherlands), WUR.

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Climate change

Worldwide, the effects of climate change have become evident in recent years. The climate is warming up and extreme weather conditions occur more frequently.

Effects on flora and fauna

The effects of climate change are also felt in the Netherlands. Higher temperatures are affecting the

Dutch fauna. As a result, cold-loving birds, butterflies and amphibians are declining in numbers, but conditions are improving for heat-loving species and their numbers are growing. Although species not affected by temperature changes are declining marginally, cold-loving species are affected more seriously. The trends for the three types of species are significant ($p < 0.05$).

Area shift

Declining numbers may suggest that the area of distribution is becoming smaller. Cold-loving species might disappear altogether from the Netherlands in the long run, while heat-loving species will expand their habitat to the north.

References

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- Devictor, V. et al. (2012). Differences in the climatic debts of birds and butterflies at a continental scale. *Nature Climate Change* 2:121-124.

Reference for this page

CBS, PBL, RIVM, WUR (2015). [Effects of climate change on cold and heat-loving species, 1990-2013](#) [4] (indicator 1429, version 08 , 10 March 2015). www.environmentaldata.nl. Statistics Netherlands (CBS), The Hague; PBL Netherlands Environmental Assessment Agency, The Hague; RIVM National Institute for Public Health and the Environment, Bilthoven; and Wageningen University and Research, Wageningen.

Source URL: <https://www.clo.nl/en/indicators/en142908>

Links

[1] <https://www.clo.nl/en/indicatoren/en1429>

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[3] <https://www.clo.nl/sites/default/files/datasets/c-1429-001g-clo-08-en.xls>

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