

Trend fauna - all species monitored - Living Planet Index Netherlands, 1990-2016

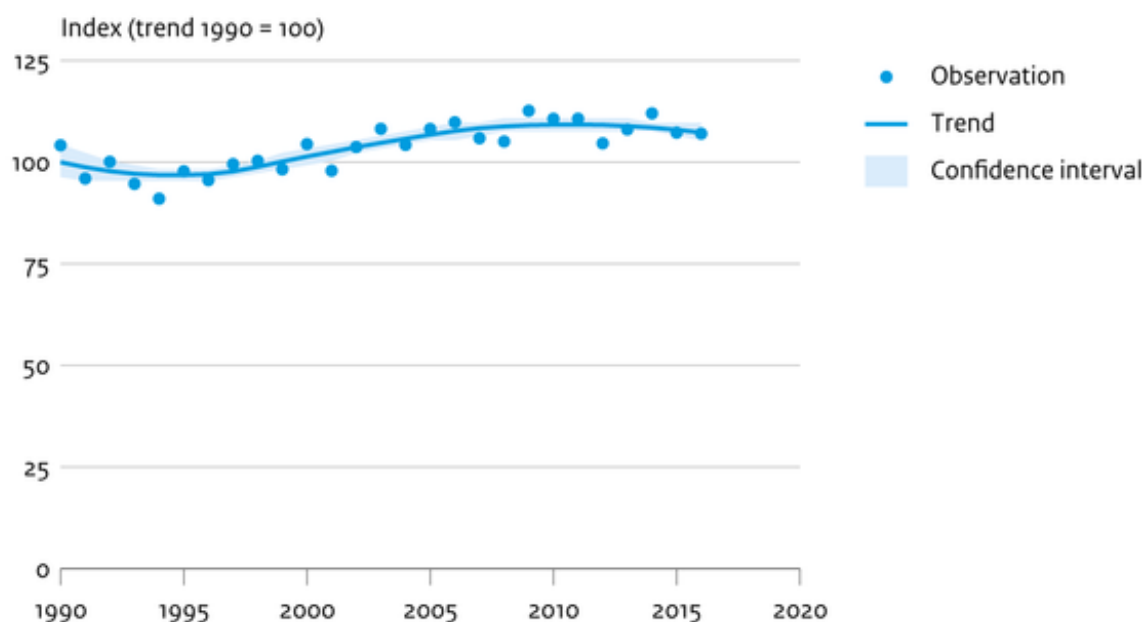
Indicator | 30 January 2018

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The Living Planet Index of the Netherlands reflects the average trend of native species of mammals, breeding birds, reptiles, amphibians, butterflies, dragonflies and freshwater fish. On average, this group has increased with 7% since 1990. The increase is mainly attributable to developments in freshwater habitats.

[figuurgroep]

Living Planet Index for The Netherlands

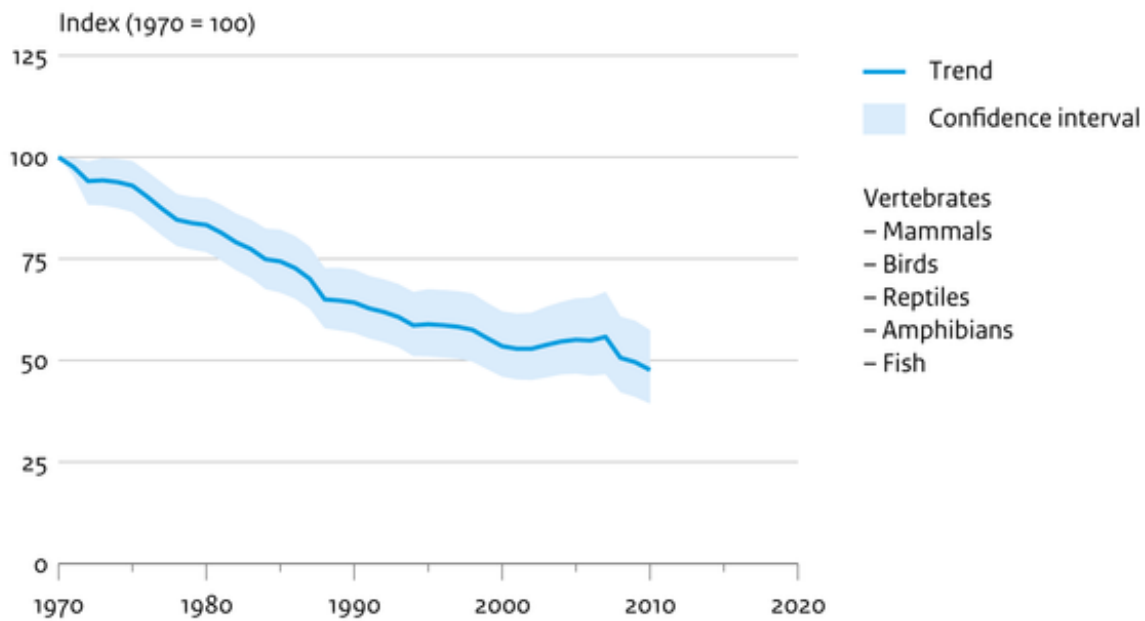


Bron: NEM (PGO's, Statistics Netherlands)

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Living Planet Index mondial

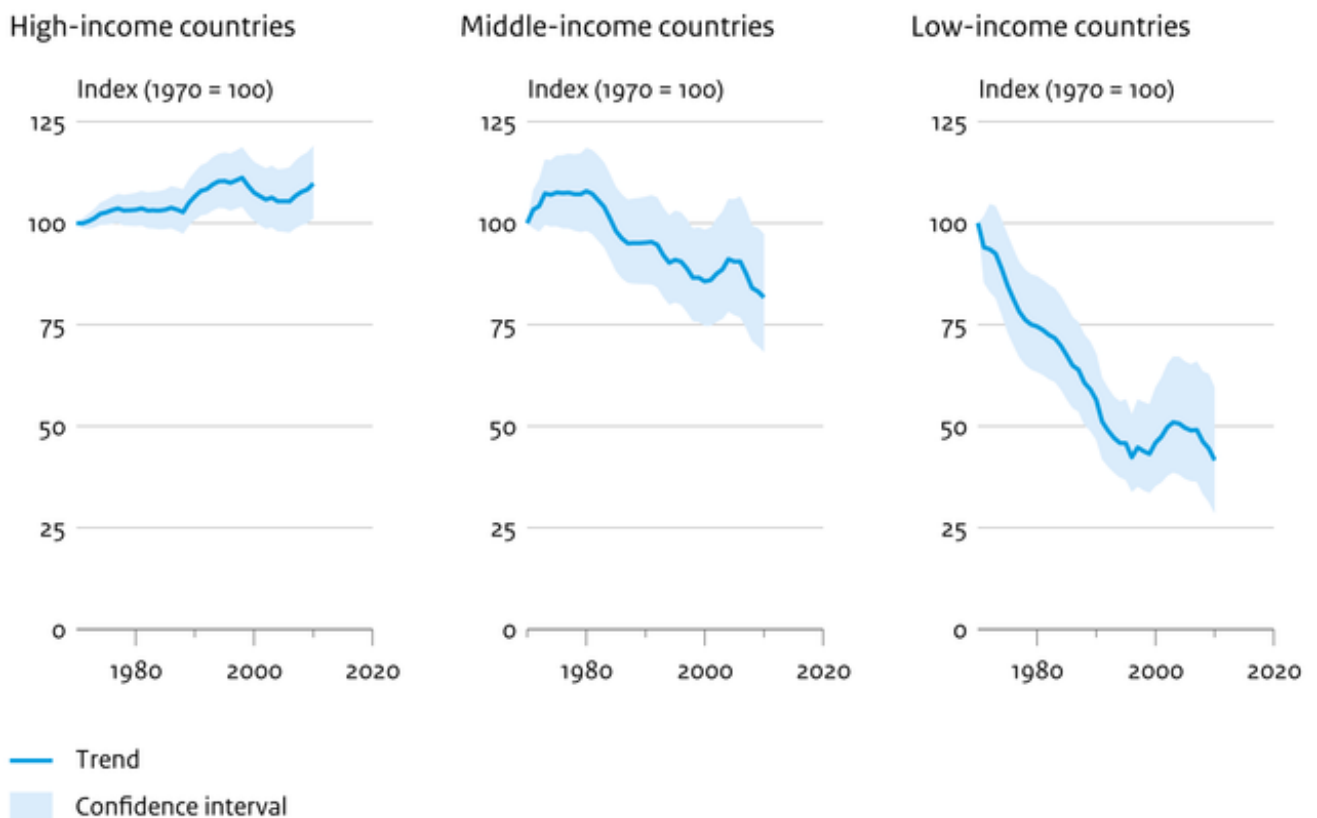


Bron: World Wildlife Fund; Zoological Society of London.

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Living Planet Index by income level



Source: World Wildlife Fund; Zoological Society of London.

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Trends in species groups

The Living Planet Index of the Netherlands reflects the average trend of 361 species of mammals, breeding birds, reptiles, amphibians, butterflies, dragonflies and fresh water fish together. Since 1990, this indicator has increased by 7%, mainly because, during this period, mammal, reptile and dragonfly populations have grown. Over the past decade, the average trend of all species together has stabilised. The indicator reflects an average trend; various species and/or groups of species, in particular amphibians, butterflies and fish show a downward trend.

Global LPI

The global LPI (WWF 2014; see second tab page) includes population data on more than 3000 vertebrates (mammals, breeding birds, reptiles, amphibians and fish). In the period 1970-2010, the global LPI decreased by 52% and also after 1990, (the start of the Dutch time series), the trend is

still downwards. So, the marginally upward trend in the Netherlands observed since 1990 and the subsequent stabilisation are at odds with the overall global trend.

If the LPI is broken down by groups of countries with different income levels (according to World Bank criteria), it turns out that the LPI has risen in high-income countries (by 9.7 % over the period 1970-2013), which is similar to the Dutch trend. According to the World Wide Fund for Nature, the increase is an indication of recovery after severe loss of biodiversity, which partly occurred prior to 1970 and the increase proves that restoration of natural environment is possible because nowadays rich countries are prepared to mobilise more financial resources for projects to restore natural environment. Furthermore, goods are often imported from low-income countries and these low-income countries also suffer the negative effects on biodiversity of massive production of goods.

LPI in the Environmental Data Compendium

The Living Planet Index (LPI) is the average trend of all species for which sufficient data is available to calculate trends with. The rationale of the LPI is that the more species show negative population trends and the stronger the overall decrease is, the more deplorable the state of nature is (and vice versa). The LPI is widely used in the international context to describe changes in biodiversity over time. In the Environmental Data Compendium it is one of the indicators to describe trends in biodiversity in the Netherlands, covering parts of the biodiversity concept. Other biodiversity indicators capture complementary aspects of biodiversity.

The Dutch LPI represents the development of populations of native species for the Netherlands, excluding species of marine and brackish habitats. In 2017, the marine LPI has been further developed, and extended with trends of birds, benthos and fish of the North Sea, the South-West delta, the coast and the Wadden region. These trends are not yet incorporated into the overall Dutch LPI.

In 2017 a study was published on the strong decrease in total insect biomass in German protected areas bordering the Netherlands. It is still unclear to what extent such a decline has occurred in the Netherlands too. Although two insect groups have been incorporated in the Dutch LPI (of which one shows an increase in average population trend and the other one a decrease), adding more insect groups may have a negative impact on the overall trend.

Apart from average trends per species group, LPI can also be used as a signalling tool for change in ecosystem quality. The quality in this case is measured in terms of presence/abundance of species typically associated with certain habitats, so called habitat specialists. If the LPI is broken down by ecosystem, it appears that the increase of the overall LPI is mainly attributable to population increases of species typically associated with fresh water and marshlands. In farmland and open natural areas (heathland, dunes and semi-natural grassland), the average trend of the habitat specialists decreased, sometimes strongly. In woodlands, the LPI remained largely stable.

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CBS, PBL, RIVM, WUR (2018). [Trend fauna - all species monitored - Living Planet Index Netherlands, 1990-2016](#) [15] (indicator 1569, version 03 , 30 January 2018). 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.

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- <https://doi.org/10.1371/journal.pone.0185809> [12]
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