

Trend fauna - all species monitored - Living Planet Index Netherlands, 1990-2019

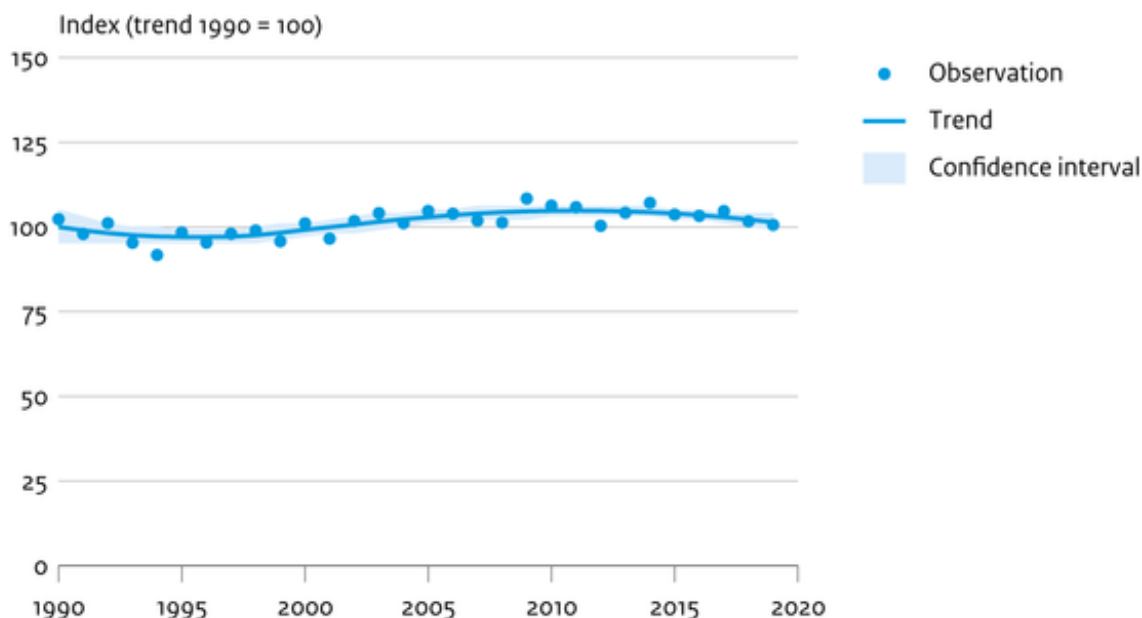
Indicator | 1 April 2021

You are currently viewing an archived version of this indicator. The most recent version can be viewed [here](#) [1].

The Living Planet Index of the Netherlands has increased with 1.4% since 1990. The trend has stabilised over the past twelve years.

[figuurgroep]

Fauna of land and freshwater (Living Planet Index)

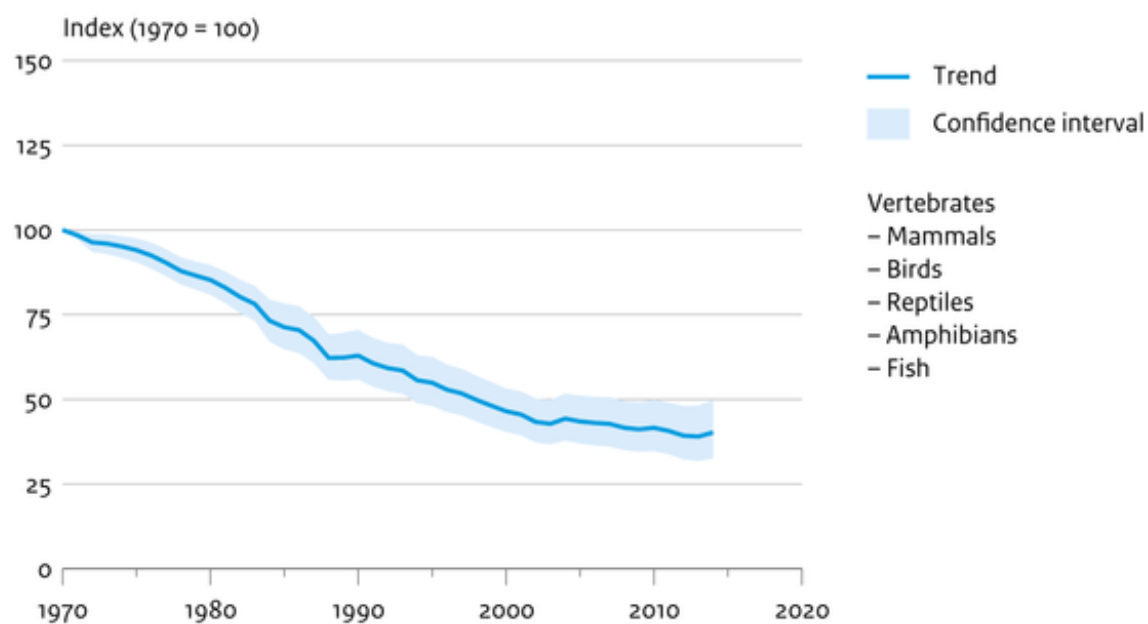


Bron: NEM (Citizen Science Organizations, Statistics Netherlands)

CBS/mar21
www.clo.nl/en156906

- [Download bitmap](#) [2]
- [Download data \(xlsx\)](#) [3]
- [Download data \(ods\)](#) [4]

Living Planet Index mondial



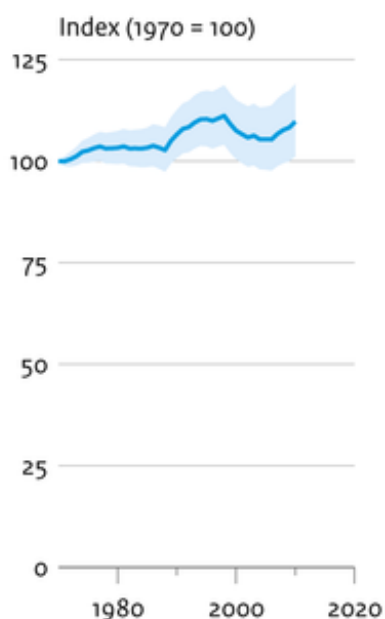
Bron: World Wildlife Fund, Zoological Society of London

CBS/mar21
www.clo.nl/em156906

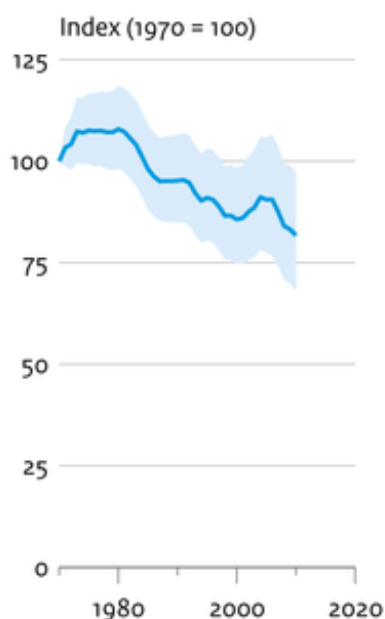
- [Download bitmap](#) [5]
- [Download data \(ods\)](#) [6]
- [Download data \(xlsx\)](#) [7]

Living Planet Index by income level

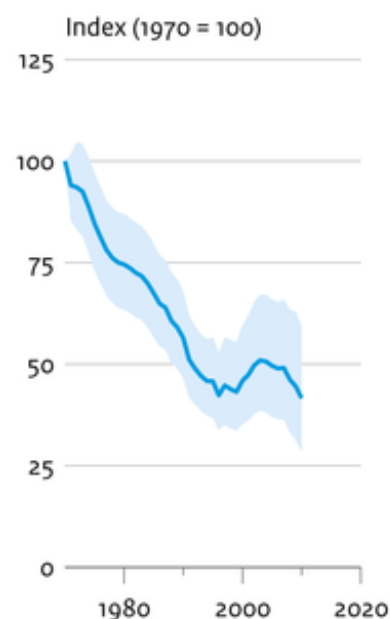
High-income countries



Middle-income countries



Low-income countries



— Trend
 Confidence interval

Bron: WWF, ZSL

CBS/mar21
www.clo.nl/en156906

- [Download bitmap](#) [8]
- [Download data \(ods\)](#) [9]
- [Download data \(xlsx\)](#) [10]

[/figuurgroep]

Trends in species groups

The Living Planet Index of the Netherlands reflects the average trend of 351 species of mammals, breeding birds, reptiles, amphibians, butterflies, dragonflies and fresh water fish together. Since 1990, this indicator has increased by 1.4%, mainly because, during this period, mammal, reptile and dragonfly populations have grown. Over the past twelve years, 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 and butterflies show a downward trend.

Global LPI

The global LPI (WWF 2018; see second tab page) includes population data on more than 4000 vertebrates (mammals, breeding birds, reptiles, amphibians and fish). In the period 1970-2014, the global LPI decreased by 60% 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 1970-2010; WWF 2014), 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 woodlands, the LPI shows an increase too. In farmland and open natural areas (heathland, dunes and semi-natural grassland), the average trend of the habitat specialists decreased, sometimes strongly.

References

- Buckland, S.T. en A. Johnston (2017). Monitoring the biodiversity of regions: key principles and possible pitfalls. *Biological Conservation* 214: 23-34.
- Butchart, S.H.M., M. Walpole, B. Collen, A. van Strien, J.P.W. Scharlemann et al., 2010. Global biodiversity: indicators of recent declines. *Science* 328, 1164-1168, doi:10.1126/science.1187512.
- Hallmann, C.A., M. Sorg, E. Jongejans, H. Siepel, N. Hofland, H. Schwan, W. Stenmans, A. Müller, H. Sumser, T. Hörren, D. Goulson, H. de Kroon (2017). More than 75 percent decline over 27 years in total flying insect biomass in protected areas. *PLoS ONE* 12 (10): e0185809. <https://doi.org/10.1371/journal.pone.0185809> [11]
- Loh, J., R.E. Green, T. Ricketts, J. Lamoreux, M. Jenkins, V. Kapos, J. Randers (2005). The Living Planet Index: using species population time series to track trends in biodiversity. *Phil. Trans. R. Soc. B* 360, 289-295.
- Strien, A.J. van, A.W. Gmelig Meyling, J.E. Herder, H. Hollander, V.J. Kalkman, M.J.M. Poot, S. Turnhout, B. van der Hoorn, W.T.F.H. van Strien-van Liempt, C.A.M. van Swaay, C.A.M. van Turnhout, R.J.T. Verweij en N.J. Oerlemans (2016) Modest recovery of biodiversity in a

western European country: The Living Planet Index for the Netherlands. Biological Conservation, 200, 44-50.

- Termaat, T., R.H.A. van Grunsven, C.L. Plate en A.J. van Strien (2015). Strong recovery of dragonflies in recent decades in The Netherlands. Freshwater Science 34: 1094-1104.
- [WWF \(2014\). Living Planet Report. Species and spaces, people and places. WWF, Gland, Switzerland](#) [12].
- [WWF Nederland \(2015\). Living Planet Report Nederland. staat van biodiversiteit/natuur. WWF, Zeist](#) [13].
- [WNF Nederland \(2017\). Living Planet Report. Zoute en zilte natuur in Nederland. WNF, Zeist.](#) [14]
- [WWF \(2018\). Living Planet Report. Aiming higher. WWF, Gland, Switzerland.](#) [15]

Reference for this page

CBS, PBL, RIVM, WUR (2021). [Trend fauna - all species monitored - Living Planet Index Netherlands, 1990-2019](#) [16] (indicator 1569, version 06 , 1 April 2021). 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/en156906>

Links

- [1] <https://www.clo.nl/en/indicatoren/en1569> [2]
- https://www.clo.nl/sites/default/files/infographics/1569_001g_clo_06_en.png [3]
- <https://www.clo.nl/sites/default/files/datasets/c-1569-001g-clo-06-en.xlsx> [4]
- <https://www.clo.nl/sites/default/files/datasets/c-1569-001g-clo-06-en.ods> [5]
- https://www.clo.nl/sites/default/files/infographics/1569_002g_clo_06_en.png [6]
- <https://www.clo.nl/sites/default/files/datasets/c-1569-002g-clo-06-en.ods> [7]
- <https://www.clo.nl/sites/default/files/datasets/c-1569-002g-clo-06-en.xlsx> [8]
- https://www.clo.nl/sites/default/files/infographics/1569_007g_clo_06_en.png [9]
- <https://www.clo.nl/sites/default/files/datasets/c-1569-007g-clo-06-en.ods> [10]
- <https://www.clo.nl/sites/default/files/datasets/c-1569-007g-clo-06-en.xlsx> [11]
- <https://doi.org/10.1371/journal.pone.0185809> [12]
- http://wwf.panda.org/about_our_earth/all_publications/living_planet_report [13]
- <https://www.wnf.nl/wat-wnf-doet/onze-aanpak/onderzoek-en-innovatie/living-planet-report.htm> [14]
- <https://www.wnf.nl/wat-wnf-doet/onze-aanpak/onderzoek-en-innovatie/living-planet-report-2017.htm> [15]
- https://c402277.ssl.cf1.rackcdn.com/publications/1187/files/original/LPR2018_Full_Report_Spreads.pdf [16]
- <https://www.clo.nl/indicatoren/en156906>