## Science & Environment

## 'Alarming' loss of insects and spiders recorded

By Helen Briggs BBC News

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## Insects and spiders are declining in forests and grasslands across Germany, according to new research.

Scientists have described the findings as "alarming", saying the losses are driven by intensive agriculture.

They are calling for a "paradigm shift" in land-use policy to preserve habitat for the likes of butterflies, bugs and flying insects

Recent studies have reported widespread declines in insect populations around the world.

The latest analysis, published in the journal, Nature, confirms that some insect species are being pushed down the path to extinction.

It is becoming clearer and clearer that the drivers of insect decline are related to farming practices, said Dr Sebastian Seibold of the Technical University of Munich in Freising, Germany.

"Our study confirms that insect decline is real - it might be even more widespread then previously thought considering, for example, that also forests are experiencing declines in insect populations," he told BBC News.

"I think it's alarming to see that such a decline happens not only in intensively-managed areas but also in protected areas - so the sites that we think are safeguarding our biodiversity are not really working anymore."



The research team recorded data on more than a million individual insects and spiders (2,700 different species) at hundreds of grassland and forest sites in three regions of Germany between 2008 and 2017.

They found that a marked decline in abundance and the number of species in both grasslands and forests, with the main drivers (at least for grasslands) associated with intensive agriculture.

Many other studies in recent years have shown that individual species of insects, such as bees, have suffered huge declines, particularly in developed economies.

However, some insect species, such as houseflies and cockroaches, appear to be on the up.

- Insect decline may see 'plague of pests'
- Alarm over decline in flying insects
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The general insect decline is linked to intensive agriculture, pesticides and climate change.

The loss of insects has far-reaching consequences for entire ecosystems.

Insects provide a food source for many birds, amphibians, bats and reptiles, while plants rely on insects for pollination.

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