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German Experts demand Emergency Measures to Prevent Extinctions of Bees and Insects

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Wild Bee (***Hoplitis papaveris***) on cornflower.

German Entomology Experts sound the Alarm over the accelerating loss of bees and insect species and demand immediate government action. In particular the entomologists are concerned over the massive decline in wild bee populations; Read what the scientists are demanding, in addition to an immediate ban on neonicotinoids, in their resolution.

Hohenheim - Entire landscapes which are completely devoid of pollinating insects: this nightmare situation is already a reality in China. In Sezchuan, pears, apples, plums and almonds have to be pollinated by human hands, because all the bees are dead; in a few years, unless urgent action is taken, this could happen in Germany.

Latest research shows that populations of wild bee species and other insects have fallen drastically in Germany. If this trend continues, according to experts, many species will become extinct in less than ten years. The result would be an ecological catastrophe and an economic disaster, costing billions to farming and food production.

Therefore, 77 well known researchers signed a petition to German Federal Environment Minister Dr. Barbara Hendricks. A combined meeting of biologists from the State Museum of Natural History in Stuttgart and the University of Hohenheim demanded immediate government action to halt the drastic decline in wild bees and other insects.

Urgent Action Needed

In their resolution, the researchers **demand a complete ban on neonicotinoids insecticides** until the pesticide industry can prove scientifically, that they are safe for bees and wildlife.
The entomologists also call for action to diversify and enrich the biodiversity of the farmed landscape, such as reintroducing wildflowers and long-term monitoring of insects, especially wild bee species. Such actions would make it possible to identify vulnerable insect populations better in the future, and to take remedial action in time to prevent extinctions.

"The experts agree, that only through urgent action to protect such insects, can species be saved. We hope that our resolution raises public awareness of the gravity of the situation; we need urgent government action in the form of policy measures",
said **Dr. Lars Krogmann**, scientist at the State Museum for Natural History in Stuttgart.

Neonicotinoids weaken wild bees

Around 1994 a revolutionary new family of insecticides was licensed in Europe: these were the neonicotinoids - neurotoxins which are highly effective pesticides against insects.
They were considered a better option for farmers against pests such as; aphids, leaf miners and shield lice, caterpillars, beetles and cicadas. In respect of honeybees, the neurotoxins allegedly showed no lethal effects, at least initially. Therefore, the regulators saw no reason to refuse a license for the new pesticides.

Subsequently, however, many scientific studies have revealed long-term toxic effects on bees and have confirmed the long term persistence of neonicotionids in arable soils, even when used according to the label. A recent study confirmed that populations of some species of wild bees , already on the Red List of endangered species, have fallen drastically:

"In certain areas, some bee species have crashed by 75 percent in just ten years," explains ecologist Prof. Dr Johannes Steidle of the University of Hohenheim. "***This is Alarm Level Red.***"

Massive decline of insects

Neonicotinoids do not kill bees and insects immediately.

"But obviously bees are weakened. Their ability to learn is diminished; their olfactory system is damaged; wild bees are affected even more than honeybees. The result is that populations are falling rapidly. Wild bees are extremely important for pollination. Other parasitic and predatory insects used to provide a natural ecological balance, so that harmful insects did not take over. But since neonicotinoids kill predator insects as well, such biological control is in danger, " said Prof. Dr. Steidle.

Research over recent years confirms that modern farming is exterminating all insects.
"Colleagues from North Rhine-Westphalia, who have monitored insect populations for more than 30 years, have observed that more and more species are going extinct and the total biomass and number of insects is declining rapidly", says the entomologist Dr. Krogmann.

Intensive agriculture reduces the structural diversity of the landscape, imposing industrial monocultures of crops, which has a fatal impact on biodiversity. Ironically, the blanket use of chemical fertilisers and systemic pesticides actually increases the number of insect pests.
This phenomenon has grown dramatically since the year 2000, as the latest research shows.

A conference on Hymenoptera

The call for the protection of insects was signed in Stuttgart in October 2016 at the **Twelfth Hymenopterologists' Conference**, a biologist's symposium on the subject of Hymemoptera (which include: bees, wasps and ants). The 77 experts present signed the resolution to the Federal Environment Minister.

In addition to the presentation of current research results, the Hymenopterists' Conference also enables the exchange of information and experiences, public relations and networking between scientists.

Key Demands

1. The scientists demand a complete ban on all neonicotinoids. Failing that, they demand a complete moratorium - or suspension of their use, until such time as firm evidence of neonicotinoids environmental safety for wildlife can be provided by the industry..

2. Increasing the structural diversity in the farming landscape, for example by diversifying habitat and planting wildflowers.

3. Introduction long-term, scientific monitoring of insects, across a complete range of habitats in Germany.

4. Amendment to the Federal Protection Order: introduction of a much stricter protection status for highly endangered insect species, such as wild bees, especially those which are on the Red List of German species.