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# Pollinators and beehives

## Technical sheet #1

Pollinators are flower-feeding insects that are efficient at transporting pollen. The main groups of pollinators belong to four orders of insects: **Lepidoptera** (butterflies), **Diptera** (mosquitoes, flies), **Coleoptera** (beetles) and **Hymenoptera** (bees, ants, wasps). These domestic and wild pollinating insects help to maintain biodiversity and are essential to natural ecosystems. Indeed, 90% of flowering plants depend on insects for pollination. They also play a crucial role in agriculture (fruit, vegetables and field crops): 35% of what we eat depend on pollinators.

For several decades now, **populations** of wild pollinating insects and colonies of honeybees **have been declining worldwide**. To speed up the implementation of measures to combat their decline, **the French government has launched a national plan** to promote pollinating insects and pollination.

### DID YOU KNOW ?



1 out of 10 bee and  
butterfly species is  
threatened with extinction.

Data : UICN



The widespread installation of beehives, particularly on airport meadows, is one of the most visible manifestations of the desire to fight the decline in pollinators.

## CHALLENGES FOR BIODIVERSITY

The installation of beehives can have **negative consequences** for wild pollinators.

Increasing the number of hives in airport meadows can put pressure on the **availability of floral resources for wild pollinators**. When these food resources are limited, indirect competitive interactions can occur between honeybees and wild pollinators. Colonies of honeybees can also be carriers of **viruses or parasites for wild populations**.

In addition, as honeybees are generalists, they visit a wide range of plant species and are therefore less effective at reproducing plants sexually than wild pollinators, who are more specialists and are therefore limited to a smaller number of plant species. Finally, **competition can also arise between the hives themselves**, each of which can contain tens of thousands of individuals who have to share floral resources.

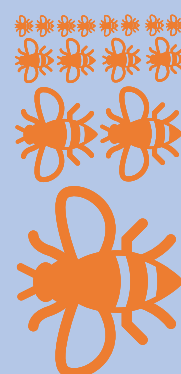
1 species of domestic bee (Apis mellifera)

1



1000 species of wild bees

1000



### REMEMBER



- ☒ Plan for a density of less than 3 hives/km<sup>2</sup> and a distance of more than one kilometer between beehives.
- ☒ Adapt the management of the platform: give priority to refuge strips and areas rich in melliferous plants.
- ☒ Give priority to local and wild flowers.
- ☒ Contact specialist associations.



- > French national plan for pollinating insects and pollination, 2021-2026
- > Biodiversité des clés pour agir magazine, No. 4 January-March 2023
- > MOOC Pollinators, Tela Botanica, 2023
- > Assessment report on Pollinators, pollination and food reproduction (Rapport d'évaluation sur les Pollinisateurs, la pollinisation et la reproduction alimentaire), IPBES, 2016



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*Warning : this English version for non-French readers has been automatically generated using a translation software. Moreover, the recommendations given are adapted to French aerodromes, their climate and their management resources, and are therefore not all compatible with airports located elsewhere in the world.*

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