



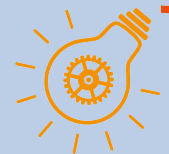
Pollinators and beehives

Technical sheet #1

Pollinators are insects that live on flowers and 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, around 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 ?



In Europe 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

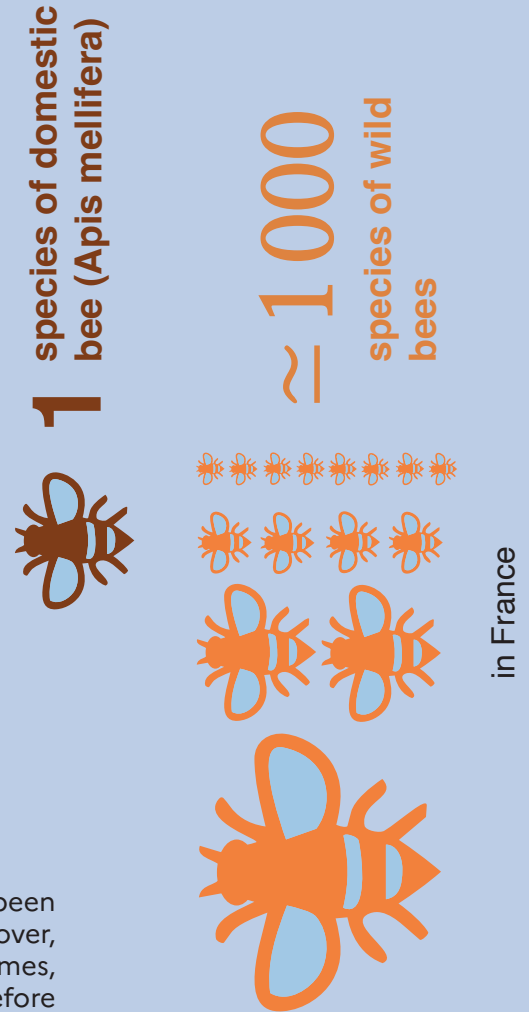
The installation of beehives can have **negative consequences** for wild pollinators.

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. To elaborate further, generalist wild pollinators are particularly threatened by the presence of honeybees given their role in pollination.

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.

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.



À RETENIR



- ✓ Plan for a density of less than 3 hives/km² 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.

GO  Further

- 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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