



# Le Butineur

Pollinium, créateur de biodiversité



Newsletter of bees of ADELAC.

Winter 2023

Committed to protect biodiversity, ADELAC invests in sponsorship of bees. Come and get an inside peek of the incredible life of foraging bees. If you are a nature lover, you will certainly enjoy it.



– Beehive history –

## The anatomy of a bee: a real Swiss Army knife!

Mother Nature left nothing to chance when creating the body of a bee. She has endowed it with a very performant honey-producing machine. Her five eyes (two large ones at the side and three small ones on the top of the head) give her a panoramic vision - not only does she see her predators coming, but she can also easily locate the sources of nectar. Her two antennae, which are in constant motion, allow her to both touch and smell. Her mouth parts serve as a pair of pliers, a knife, a planer... She can also use her mouth parts to shape wax, knead propolis or build honeycombs. As for her long, sliding tongue, it can suck nectar deep inside corollas. Her three pairs of legs give her plenty of options too: while the front ones are designed to clean the antennae, grip variety of surfaces or catch pollen, the rear legs, which are covered in hair, are equipped with pollen baskets and hooks. The hooks are essential for forming a chain



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between frames during wax production. Her two pairs of wings are ideal for flying in all directions and in almost any weather. They're also very effective for ventilation inside the hive or for the communication dance. Last but not the least, because it's important to defend

one's family and one's food, a bee is equipped with a stinger which can be used only once - a bee will die after stabbing the enemy. Bees are really well-equipped!

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– Beehive history –

## Is cold an enemy?



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Bees thrive on sunshine and warmth, which provide them with nectar-rich flowers. In winter, however, everything changes: cold and sometimes snow may interrupt their daily ballet in the air. As soon as the temperature drops below 12 or 11 degrees, bees no longer leave the hive. That's when the long, winter confinement begins. Although less active than in summer, bees will continue to move inside their hive to fight the cold. Assembled in clusters, they will constantly rotate from the outside of the cluster to the inside while flapping their wings to maintain a minimum temperature within their habitat. They're good at surviving the cold... unless they lack in food or if the cluster is too far from its resources. Because to produce energy, you need energy! And the thing is: honey is a super food...



## – Bees and men –

### Toxic honey!

In 401 BC, Xenophon, who was a Greek philosopher, recounted an astonishing episode he had witnessed during the war between the Greeks and the Persian Empire.

While fleeing the enemy, Greek soldiers had to cross a mountainous region with beehives near present-day Turkey. The villages had been abandoned but the food was plenty. Starving, the soldiers pounced on the honey they found in the houses.

"Those who had only tasted this honey looked as if they were drunk; those who had eaten more looked as if they were furious while others looked as if they were dying. There were more soldiers seen lying on the ground than if the army had lost a battle".

Even today, in this same region of Turkey, cases of honey poisoning are frequent. Scientific studies have confirmed the writings of the Greek philosopher. This toxic honey is harvested by bees from "Rhododendron Ponticum", which produces a toxin that is highly harmful to humans.

This shows the close link between the type of a flower and the honey made from its nectar, hence the wide variety of honeys and their "virtues".

Fortunately, honeys that are unsuitable for consumption are rare, and the rhododendrons honey in this part of France is not at all toxic!



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#### Henry Duchemin,

beekeeper, sociologist and founder of Mélilot Consulting

For more info, please go to: <http://melilotconsulting.com>

## News from Pollinium

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The end of the year is often a good time for taking stock. Pollinium now manages 336 hives with 195 sponsors committed to protecting the environment. Some of them have already taken up the challenge of reusing honey jars to reduce our carbon footprint.

The fight against the Asian hornets, which are present throughout France, has been a constant concern and a constant source of work. Various techniques have been tested to protect our colonies from the mandibles of this terrible bee predator. Our research work will continue in 2024.

Last but not least, Pollinium has been lucky enough to welcome three new beekeepers and two new members of staff: Camille, who is pursuing a Master's degree in graphic and digital communication design at ESDAC in Lyon. She has been handling the communication part; and Stéphanie, a singer and actress, whose creative shows has delighted the public at the end-of-year events.

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## Newsflash

Proverbs and sayings

*« Milk and honey are delights of the rediscovered intimacy »*

Gilbert Durand

