

Le Butineur

Pollinium, créateur de biodiversité



Newsletter of bees of ADELAC .

Summer 2022

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.

 ADELAC

– Beehive history –

From nectar to honey - a magical transformation

It all starts with a flower and it ends with a toast of honey. And in between, many activities take place inside and outside the hive.

The first step in making honey takes place in the heart of a flower. This is where the foragers draw nectar, a liquid composed of water and sucrose, which they store in their "honey stomachs", called honey sacs. They then return to the hive where "recipients" await them at the gate. No sooner have the first bees arrived than the second group of bees unload their loot by storing it in their own honey sacs. That's how the drop of nectar starts its slow chemical transformation, passing from bee to bee, from one honey sac to another until it reaches the final honeycomb. During these exchanges, the liquid concentrates in enzyme-invertase which transforms the sugars of the plant into simple sugars, mainly glucose and fructose. A certain amount of this glucose is modified by a second enzyme - glucose oxidase. This is how you get gluconic acid and hydrogen peroxide. It's true, bees are



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great chemists! Thanks to this acid, they keep bacteria and fungi away from their pittance. The next step is to evaporate the excess water. And for that, they just need the summer heat and their fluttering wings. When the water content reaches

18% and the microbes can no longer proliferate there, they close the cell with a wax plug. The honey is ready, waiting to be eaten...by you?

– Beehive history –

Dangerous liaisons



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Characterised by a body size greater than a working bee, a drone (a male bee) doesn't go unnoticed in a hive among his slender sisters. A male bee is mainly present in the colony during heavy honey flows, which means in spring and early summer. Hatched from an unfertilised egg, he has no stinger and does not harvest nectar. His only purpose in life is reproduction.

Born to mate with a queen in flight (the nuptial flight), he does not survive the act since he loses his genitals in the process.

Devoid of means of defence, wax glands and pollen combs, he nevertheless has some assets to achieve his goals. His eyes are twice as large of those of worker bees and they have more facets. His antennae contain ten times more olfactory receptors and his flight muscles are better developed.

He is programmed to fertilise... and to die before winter. A drone, who is very greedy, is chased from the hive in autumn. His life expectancy hardly exceeds 90 days.



- Bees and men -

Sharing useful information for the benefit of all

If you observe the foragers during the honey flow, you'll be quite impressed with their "conscriptio". It starts with the first rays of the sun, when the first explorers come out of the hive to conquer the surrounding flowers. Their mission - identify the flowers which are the richest in nectar and the closest to the hive. You could compare it to a kind of a daily updated market research.

While filling their honey sac (honey sac is a type of large nectar reservoir) bees could make you think of a Canadair 415 aircraft carrying water to put out fires! Once the honey sacs are full, they will head back to the colony to share the whereabouts of the flowers and to recruit new foragers. They

will do so by performing a waggle dance. That's when the new recruits obtain all the useful information (direction, distance and floral species) to optimise the harvest. Once the second group of foragers returns to the hive, they will also recruit new bees and so on until the countless number of foragers has been recruited.

I know companies whose sales strategy is based on outdated studies or where everyone prefers to keep their knowledge to themselves instead of sharing it so that everyone can succeed. Fortunately, bees have no such practices!



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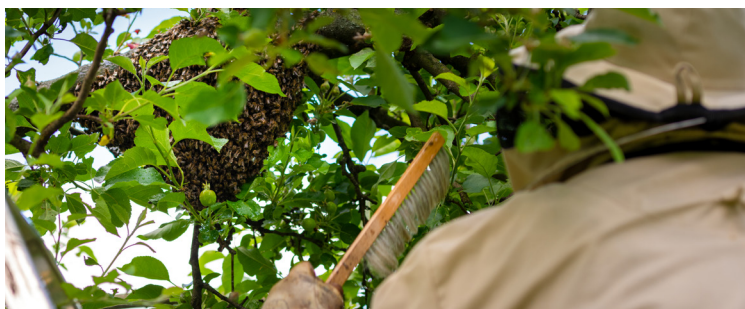
Henri Duchemin,

beekeeper, sociologist and founder of Mélilot Consulting

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

- Beehive history -

A tricky pickup!



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"Collecting" a swarm is the beekeeper's favorite activity. Or a dread! Depending on where the bees choose to settle down when they leave the hive, retrieving them can either be

basket, and to shake the branch. The bees will fall into the container and voila.

a piece of cake or a real headache... and it's not always a success. In the best of cases, as most beekeeping records suggest, a beekeeper will find the swarm with its queen clustering on an easily accessible branch. It is then enough to position an improvised

hive, such as a box or a basket, and to shake the branch. The bees will fall into the container and voila. But things are not always so simple! The swarm may have taken up residence higher up in the trees, in an inaccessible bush or even under the cladding of a house... In that case, removing the swarm may become much more complicated and uncertain. If that happens, a beekeeper will generally set up an attractive trap hive, lined with sheets of wax close to the swarm, hoping to persuade these ladies to come down from their perch. Well, normally...

Brief

Proverbs and sayings

« *Mankind is a hive of beings* »

Gaston Bachelard

A SPINY CARPOOL!

20minutes.fr recently reported that a swarm chose to nest on a car parked on a street in the French town Le Havre. Luckily a beekeeper recovered it without damage.

