THE RIGHT TO BEE

YEE YOUTH AND ENVIRONMENT EUROPE

CURRENT STATE OF BEES

For more than five years (2012-2017) YEE has worked on the **"The Right to Be(e)"** campaign, which supported the survival of bees in Europe through local actions (*read more in the section "Summary results The Right to Be(e)"*). From 2012 till now, more than 30 participating groups and organisations took part in the campaign, almost 50 bee-friendly actions have been taken and 470 bee-lovers have been following and sustaining The Right to Be(e)'s Facebook page. A real success, but enough to declare the war won?

THE USE OF NEONICOTINOIDS

Unfortunately, bees' current state is not as rosy as we would like it was. One of the threats to bees' survival, and perhaps the most dangerous one, is the extensive use of pesticides - in particular **neonicotinoids** - which interfere with bees' brains, limiting their abilities to learn and remember what food they should be eating: a death sentence. The state of affairs looks particularly critical in the U.S. where the former President Barack Obama signed in 2014 the infamous *"Monsanto Protection Act"* which gives biotech companies immunity in federal U.S. courts from damages to people and the environment caused by their commercial compounds.[1] Would you be now surprised to discover that US beekeepers lost 33% of bees in 2016-2017?[2]

To make it clear, the extensive use of pesticides is not only a North American issue. **A worldwide survey** aimed to assess the global exposure of pollinators to neonicotinoids published in October 2017 in *Science*, reveals that 75% of the 198 analysed honey samples contained at least one chemical compound, 45% contains two or more and 10% contains four or five. The highest contamination has been recorded in North America, Europe and Asia. One of the study authors, commenting the survey findings, stated: "there's almost no safe place for a bee to exist".

THE VARROA DESTRUCTOR

However, the biggest threat to bees' survival comes from the well-known ***Varroa Destructor***, an external parasite which attacks honey bees provoking a disease called *varroosis*. A mite infestation may lead to the death of a whole bee colony (*Colony collapse disorder*[3]) usually in the late autumn through early spring. In the United States, the percent of the colonies reported to be affected by *Varroa Mite* during April 2017 through June 2017 is 41,6%[4]. A bloodbath.

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[1] http://www.greenpeace.org/usa/sustainable-agriculture/save-the-bees/
[2] http://www.sciencenewsline.com/news/20170525160600 57.html
[3] The term *Colony Collapse Disorder* (CCD) indicates the loss of many bees at the time. The reasons are unknown, but Varroa Destructor is strongly suspected to be one of them.
[4] https://www.usda.gov/nass/PUBS/TODAYRPT/hcny0817.pdf

THE GOOD NEWS: POLITICAL ADVANCEMENTS

The first good news makes us particularly satisfied because it is a good demonstration of how good politics can make a difference and create a virtuous circle. In 2013, following the *European Food Safety Authority* guidelines, the *European Commission* **temporarily restricted the use of three pesticides** considered responsible for pollinator decline (in March 2017, *The Guardian* published an article which claimed that they had obtained information that indicated that the *European Commission* wants a complete ban and cited "high acute risks to bees"). The decision had a worldwide resonance and several member countries decided to go further:

- on June 26th 2017, **the French Prime Minister Edouard Philippe** confirmed that a complete ban on pesticides found harmful to bees will be effective in September 2018 as scheduled.

- on October 18th 2017, in **Germany**, after the revelation that 75% of all flying insects have disappeared in the last 30 years[5], the Greens are fighting hard to put the topic of pesticides in the core of economic and environmental policies.

- on November 9th 2017, the **British Secretary of State for Environment, Food and Rural Affairs Michael Gove** declared on *The Guardian* the decision to strongly restrict the use of neonicotinoids, overturning the previous UK government position.

- **Italy** instituted an additional ban on neonicotinoids in 2013 that has been extended each year since.

SCIENTIFIC RESEARCH

Other important advancements concern scientific research on ***Varroa Mite***. In an article published on *Insect Science* on July 28th 2017, Michigan State University scientists revealed to have found genetic holes in the pests' armour that could potentially reduce or eliminate the unwanted invaders. Through a process known as "gene knockdown" scientists succeeded to interfere with *Varroa `s* RNA reducing the mating success and the number of eggs. The first results are extremely promising and scientists are confident to apply the process on a large scale in the near future.

Another encouraging and innovative solution may come from the Entomologist Department of Washington State University led by Prof. Steve Sheppard. Prof. Sheppard and his mycologist friend Paul Stamets are exploring the way in which a fungus extract could kill *Varroa* mites while leaving honeybees unharmed. According to them, "an extract made from the *Amadou* mushroom, *Fomes fomentarius*, reduced the Deformed Wing Virus in honey bees by more than 1,000 times, compared to controls. We are also growing a large quantity of another

[5] https://www.mnn.com/earth-matters/animals/blogs/flying-insect-populations-Germany-declined-75-percent-30-years

fungus, *Metarhizium*, that attacks and kills the *Varroa mite*, but doesn't harm honey bees, in preparation for more studies."[6] Moreover, the "mushroom way" has the additional quality of being sustainable and allows the beekeeper to get off a chemical treadmill.

THE POWER OF CIVIL SOCIETY

Eventually, a last but crucial point - which may be perceived as irrelevant in the short term, but that will pay off in the long run - deserves to be highlighted: the **role of civil society** which is the sphere of rational and democratic social interaction where rational-will formation is encouraged. In a word, a *collective conscience*. Several NGOs (*WWF*, *Greenpeace*, *YEE* and many others), mass media (*The Guardian* dedicated several articles to bees) and even institutions (the *United States Environmental Protection Agency* is facing the issue very seriously, while the *European Commission* inaugurated in 2014 a conference series entitles *Conference for Better Bee Health*) are contributing to put the issue at the centre of public debate.

If it is true that, in the contemporary world, institutionalised powers (politics, business, science etc., and the case of bees is emblematic) still preserve the privilege of taking the decisions that really matter, it is also true that the dialectical relationship linking civil society and structured powers allows the former to exert influence and pressure on the latter.

A conscious citizen, aware of their rights and their duties, able to critically and independently think, should feel the burden and the honour of their social role. This burden and honour is nothing else than *adopting a position*. As attentive consumer and responsible elector, our conscious citizen will question himself/herself before purchasing goods produced by a company that use neonicotinoids for its business activities and will surely think twice before giving their vote to a party which opposes the ban on pesticides proven to be harmful to bees.

You will surely forgive this rousseauian like rhetoric, but this is precisely the goal of civil society: informing, spreading knowledge, making people think and giving them the opportunity to take action. Building a *collective conscience*. Working on the conscience, beliefs and values of people is a hidden and shadowy process, but the outcomes are tangible and real.

In this regard, ***YEE`s "The Right to Be(e)" campaign*** is an excellent example: hundreds of people dedicated their time and their energy to the campaign, achieving small but significant results. In exchange, they gained experience, knowledge, they took part in collective activities; they surely tasted the sweet flavour of having accomplished a moral duty and of being part of something bigger than their flesh and blood.

A last, literary homage to our beloved animals: from *Plato* to *Marx*, from *Marcus Aurelius* to *Henri David Thoreau*, bees have always embodied a just, organised and cooperative society. As

[6] https://www.forbes.com/sites/grrlscientist/2017/06/05/can-a-mushroom-save-honey-bees/#65a923a35322

a symbol of love, bee meaning was associated with Cupid during Renaissance paintings. In Chinese semiology, illustrations of a bee sitting upon a flower represents courtship and marriage. The *Varroa Mite* itself was named after *Marcus Terentius Varro*, a Roman scholar and bee-lover. Fighting for bees` rights means - metaphorically speaking - fighting for the values we believe and the society we would love to live in.

Find out more about how you can help the bees in the section "What you can do - Toolkit".

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