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The New World Franciscan Scientific Endeavour of The New World Church
Restoring and Healing the World through Responsibility and Commitment in accord with Natural and Divine Law!

Fact Sheet — Bees — October 2014

# The worldwide disappearance of the bees

## Why their dying threatens our own survival

**Without bees our world would not be so colourful, our dinner tables would not be so richly set and the grounds would be eroded. Our lives would not be worth living and we would hardly be capable of surviving. Man owes one third of his food to the honey bee. Whole ecosystems depend on the bee – the world's most efficient pollinator. In collaboration with many other insects the bee also fosters biodiversity which is so important for nature and for man. Furthermore, man and bee are connected by many similarities and their way of organising themselves, in nursing their offspring and in communicating with each other; all this indicates a highly developed intelligence. Bees use electromagnetic fields in many ways and are also able to create them themselves, and it is because of this astonishing ability, that they react so sensitively to any manipulation of these finely tuned systems. For this reason, it is the almost comprehensive global microwave contamination by mobile communications that is the ultimate cause for the worldwide bee deaths. These manmade microwaves disturb the bee's fundamental senses on a massive scale, and thus its immune system, too. With a weakened immune system, the bee is no longer capable of fighting off any additional strain caused it by pesticides, unbalanced diet caused by monoculture farming practices, parasites and illnesses. In this hard-pressed position it is not only extremely important for a bee colony to have a sensitive beekeeper supporting them in every way in their essential task of pollination, but it also takes every single one of us to do some re-thinking and taking action in order to ensure the survival of the bees and so that our world remains colourful and worth living in. We are a part of the ecosystem called Earth where everything is connected, and just like the bees so do we as well have our individual duty. Let us fulfill our duty once again, thus securing the survival of the bees and, hence, our own survival!**

### All the things bees accomplish

The honeybee is the most efficient pollinator in the world. No other insect is capable of using such a variety of flowers. 80% of flowering plants are pollinated by honey bees. Man owes about one third of his food to the bee. Only the harvest of wind-pollinated plants like rice, grains, grapes and maize are not influenced by the bees. They ensure the reproduction of thousands of plant species and hence secure the diversity and flowerage of the landscape as well as providing the nutritional base for birds, other insects and many other animal species. Consequently, the service of the bees is the beginning of a long chain of interactions among species and if it was not for the bee, many of nature's performances would not be possible. Performances, which we take for granted, for the most part, such as a protective plant covering the soil from water or wind erosion, the transformation of organic matter into their primal nutrients by micro-organisms, or the water cycle of trees that draw up water from the ground and let it evaporate through their leaves.

*Fig. 1: About one third of our food depends on the pollination by the honey bees.*

**Bees, therefore, not only keep the food chain alive but support fundamental ecological cycles, too.**

But if you consider the abundance that nature has brought forth, it is clear that one insect alone cannot possibly pollinate all the different plants all by itself. Wild bees, of which there are more than 740 different species altogether in Germany, Austria and Switzerland (KREBS AND AMIET 2012), are often specialist pollinators, only approaching certain plant families. Their adapted body shape and small size enables them to crawl deeper into the blossoms. So, optimal pollination

cannot be provided by the honey bee or any other insect species alone; pollination is a product of the interaction of the many different bee and insect species. **The greater the number of insect species involved in blossom pollination, the more secure the pollination is of success and the higher the quality of the developing fruit and its seeds** (GARIBALDI ET AL. 2013). Their quality shows in size, weight, form and, most of all, in the nutrient content of the fruit.

Honey bees perform the most important part of pollination. On the one hand by transporting large amounts of pollen between flowers, and on the other hand, because of their flower consistency, they always approach the same flower species during their foraging trips. Thus do bees make sure that pollen from one plant is transferred to a flower of the same plant species. This kind of behaviour is only performed by honey bees and is the basis of the pollination function. Other insects such as wild bees, hoverflies, beetles and butterflies assist the honey bee in the next important step, that is of applying the pollen to the fertile part of the stigma, though only few plant species are approached by them. Hence, protecting life is not only an ethical responsibility, but the preservation of the entire diversity of insect species is an absolute necessity, thus ensuring optimal pollination.

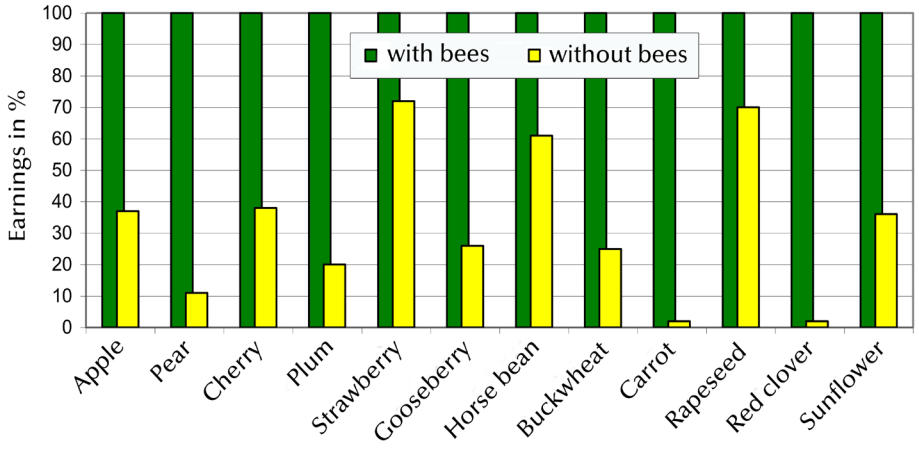


*Fig. 2: With about 265 billion Euros worldwide* (LAUTENBACH ET AL., 2012) *the economic benefit of the bees is enormous and the pollination directly affects the harvest of various agricultural crops* (RADTKE, J., 2013).

## The connection between man and bee

The bee's ability to fulfill her unique service demonstrates a highly developed intelligence, which human beings can only vaguely discern as yet. In order to understand the life of the bees and their problems in today's environment and to be able to help them, it is necessary to look at the bees and their actions from a comprehensive perspective.

The honeybee's world is startingly similar to our own. Bees feed their offspring maggots with 'sister milk', a high-energy secretion from the bee's head glands. We know this as 'Royal jelly'. This is unique among insects and can otherwise only be found among mammals. Just like human beings, bees are capable of rendering themselves independent from an ever-changing environment by protecting themselves in their own sanctuary in the form of honeycombs. In addition, the beehive is maintained at a constant temperature of about 35° Celsius when breeding, which is very similar to human body temperature. At the peak of a bee colony's development more than 40,000 bees harmoniously work together. Each part of the colony has its specific duties, which are carried out with discipline and diligence. Not a drop of nectar is wasted, everything has its raison d'être.

**Mankind has always considered the bee colony as a consistent entity of various organs and cells with different functions similar to the human body and with a consciousness.** The three bee beings – the queen, the female worker bee and the male drone, and including the appendant combs – form this entity, which is called the 'hive mind'. One more thing belongs to the hive mind: the beekeeper!

Today the beekeeper is a very important partner of this community, because, ideally, he lives in harmony with his bee colonies and helps them to survive in today's environment through his love and care. Through this collaboration between man and hive mind both are given an opportunity for precious experiences. The bees experience human love and appreciation, which motivates and prompts them to do even more. By observing the bees, man in turn gets to know the fundamental laws of nature, which he can apply in his own life. And by supporting the bees in their service to life, he himself learns a lot about the important lesson of selfless service.

**The hive mind can understand our words, thoughts and feelings. But we have largely forgotten how to understand the hive mind.** If the beekeeper does not respond to the needs of his fosterlings, if he blocks their natural development or considers them as production animals only without showing them respect and gratitude, inevitably, they will become restless and, in many cases, they won't see any other way forward than to sting. Because of this aggressive behaviour the beekeeper will often arrive at the conclusion that the colony in question is a 'stin-

ger' and, therefore, the queen will have to be exchanged in order to introduce other genetic characteristics. That is why so called 'gentle bees' are being bred with a lot of effort. It would be much more appropriate though to become 'gentle beekeepers' instead of laying all the blame on the bees.

The lack of contact between man and bee is mostly due to the egocentricity and avarice of man, that disconnects him ever more from the natural order. In today's world of mass media we have forgotten how to concentrate on just one thing for a long period of time. Our attention jumps from one news flash to the next, from one advertisement to the next, from one appointment to the next. Thus we rarely notice nature's impulses and signs. Maintaining basic trust and inner quiet takes an ever growing effort. Another reason for the missing link to nature is today's ever-present contamination through mobile communications and other radio technologies, which not only damage our and the bee's health but also disturb their ability to perceive natural energy fields.

## Life is based on electromagnetism

Every process of composition, reparation, conservation and decomposition and every communication process in nature is based on the interplay of electric and magnetic impulses and their corresponding fields. This applies to the mineral, plant and animal kingdom as well as to human beings and from cell communication to the order of solar systems. The interaction between these two forces equates to the plus and minus, the Yin and Yang and the male and female primary principles of creation.

Since the beginning of time all life has evolved under the influence of light, cosmic radiation and magnetic fields. Each physical body has its own frequency of vibration, for also cells send out light impulses, so called biophotons. In this way they communicate and create electromagnetic fields. All of this is measurable. Quantum physics has long since realised, that there actually is no 'solid' matter but everything is made of vibrations. Vibration and, consequently, matter, is changed by consciousness. It can be deduced from this that all life is connected and interacting. **Like no other creature, bees have learned to use these invisible forces. Their build and sensory organs are perfectly adapted to discern the world of vibrations and frequencies and thus man's energy fields and his thoughts and feelings. In order to truly understand the life and work of these beautiful creatures it is imperative to include this knowledge.**

## Bees use natural electromagnetic fields

The venation of the wings and tiny hair on the bee's body function like small antennae, enabling it to feel a multitude of vibrations. The bee is able to detect atmospheric discharges and, in advance, an approaching thunderstorm (WARNKE 2007).

During flight bees charge themselves through friction with air molecules. This charging is only released when the bees touch the ground which is mostly through contact with a flower, causing the electric field of this flower to change. When flying by, bees or bumblebees can tell by the electric field of the flower whether it was visited by other bees before and thus can detect very effectively where there is still food to be found (CLARKE ET AL. 2013).

We have known since the 1970s that bees can recognize the earth's magnetic field and also orient themselves by it (GOULD ET AL. 1978, WALKER AND BITTERMANN 1985). The bee has certain body cells that contain highly sensitive magnetic iron compounds. These structures align themselves to the North, putting pressure on the circumjacent nerve cells. Independent of the sun, the bee can thus recognize the cardinal direction by means of the earth's magnetic field (KUTERBACH ET AL. 1982, HSU ET AL. 2007).

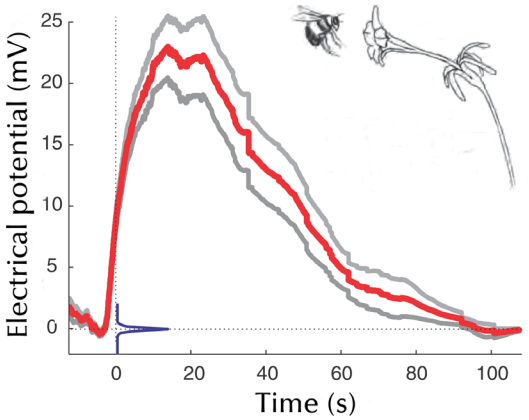


*Fig. 3: Mean electrical potential of a flower in millivolt (mV) after it has been transferred to it by a landing bumblebee. The charge is slowly released into the ground lingering at an average of 100 seconds. During this time bumblebees flying by can discern by this charge whether another bumblebee has been foraging for food in this place shortly beforehand* (CLARKE ET AL. 2013).

Bees can also orient themselves by polarised skylight, which is part of the natural electromagnetic spectrum, too. This is applied when the sun is hidden by clouds, for example. By a small gap of blue sky the bees then can identify the position of the sun, because the sunlight, diffused by the atmosphere, creates a typical pattern of polarised light (ROSSEL AND WEHNER 1984, WEHNER 1997). This pattern is independent of the zenith angle of the sun and invisible to human beings.

With the waggle dance, the bees' sophisticated dance language used for exchanging information about direction, distance and quality of foraging grounds, the bees create electronic fields with frequencies of 200 to 400 Hz, significant with this kind of communication (GREGGERS ET AL. 2013). It is important to pay atten-

tion to the fact that the pulse rate of the mobile communications standard GSM 900 MHz (Digital Phone Network) at 217 Hz lies precisely within this range!

Bees can even detect electric charge on the bodies of their returning conspecifics, colleagues of the same species, who through friction have charged themselves during flight, and use this charge for communication.

**The above information only mentions a few of the bee's manifold abilities for using electromagnetic fields. This alone should suffice to recognise that any manipulation of these finely tuned electromagnetic systems used by the bees, may disturb their functions.** For several years now, these findings have also been supported by scientific research, showing distinctly how bees discern technically generated radiation fields and how very sensitively they react towards them by changing their behaviour.

In 2006 the University of Koblenz-Landau in Germany proved that from bee colonies, which had been exposed to the radiation of DECT phone base transmitters (frequency 1,800-1,900 MHz), fewer individuals returned from their foraging trips and the few, that did return, needed considerably more time for their flight home (STEVER ET AL. 2006).

In India, it was shown that bee colonies, when exposed to mobile phones, were decimated by losing flight bees (SHARMA AND KUMAR 2010). Another study proved that under the influence of microwave radiation the composition of the bee's lymph started to change which suggests increased stress in the insects (KUMAR ET AL. 2011).

Swiss scientist Daniel Favre showed that as soon as the bees are irradiated with mobile phones they show unnatural behaviour and send out acoustic signals which otherwise they only emit in emergency situations or shortly before swarming that is, before abandoning the hive (FAVRE 2001).

These research extracts reveal how sensitive bees are towards electromagnetic fields. **Technically generated high-frequency radiation causes the bees stress, consequently, weakening their immune system. This radiation also disturbs how bees communicate and behave.**

**Worldwide blanket microwave contamination is therefore the actual reason for the dying of the bees, which is occurring all around the world and has increased so dramatically over the last ten years. The disruption of the bees' basic senses and abilities and the resulting stress caused aggravates every other negative impact such as those caused by pesticides, unbalanced diet caused by monocultures, sugarfeeding as honey-substitute, parasites and illnesses, breeding inhibiting natural selection as well as frequent disruptive intervention in the natural development of the bee colony by the beekeeper.**

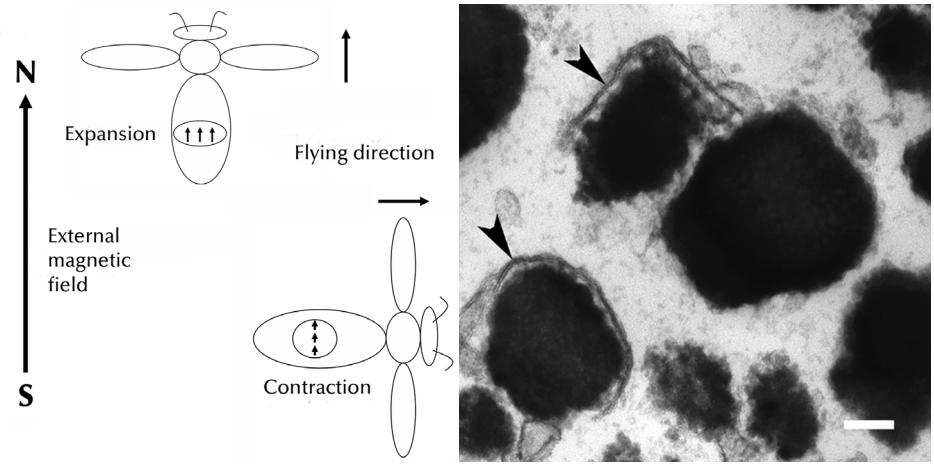


*Fig. 4, left: Model of the honey bee's orientation at earth's magnetic field: When the honey bee flies in the direction parallel to the magnetic field lines, the magnetic iron granules expand; when it flies in the perpendicular direction to the field lines, the granules contract. These changes of form provoke a stimulation of the sensory cells thus allowing the bee to recognize direction. Right: Iron granules enclosed with lipid-bilayer membranes in the bee's sensory cells (white scale bar = 100nm)* (HSU ET AL. 2007).

Global mobile communications use technologies that don't exist in nature. It is based on pulsed high-frequency waves in a frequency range of about 900-5,000 MHz. In nature, however, there are mostly only static (or quasi-static) fields such as the earth's magnetic field, or low-frequency fields (the Schumann resonances at 7.8 Hz, for example). Moreover, technical fields often generate parallel frequencies which are similar to the natural frequencies, overlay them and may disturb long term nature's highly sensitive processes.

Approaches to reduce the unnatural technical microwave contamination already do exist. By using fibre optic cable networks when radio transmission is not necessary and data transfer with frequencies that lie close to natural light (for example infrared data communication) it is possible to maintain the advantages of mobile data communication and reduce or even completely eliminate the stresses and strains on nature.

## Agriculture's responsibility

In addition to technical radiation there are many other influencing factors which must be returned to a natural order for the bees to be able to fulfill their important role without hindrances. **The countryside needs many areas** (like for example bee

pastures that especially meet the bees' needs), **which are abundant with flowers and permanently in bloom, thus providing a healthy nutritional base for bees and all other flower-visiting insects.** Monocultures, offering food only for a few months and always the same food, cannot maintain a healthy and diverse insect community.

*Fig. 5: In a countryside with many different bee plants like this one in Bliesgau, Germany, all year long bees find sufficient nectar and pollen to build up a strong vital colony.*

Furthermore, in industrial farming the meadows and pastures are very often mowed or grazed and frequently sown anew, having the effect that there are mostly grasses and hardly any herbs in blossoms. Hence, for the insects even grassland turns into a desert. This development brings about ever smaller and species-reduced insect populations, incapable of performing pollination. Farmers and food manufacturers as well as consumers need to remember to whom they owe the harvest. To profit from the insects' pollination service it is necessary to give the bees something in return, in gratitude and appreciation, so that they may find food and survive, even when crop plants and fruit-bearing trees are not flowering.

Crop protection products, for example, pesticides, are meant to kill animals which could be a threat to the harvest. They have become a daily routine in industrial farming. However, the unnaturally strong propagation of insects and unwanted plants or fungi menacing the harvest is only a consequence of big monocultures providing a particular species with an excessive nutrition base. Under natural circumstances, useful insects and birds feeding on the unwanted field guests, make sure that there will be no massive reproduction or rather, over-population of so-called vermin. Unfortunately, due to the lack of breeding areas or hedges and a scarce variety of habitats these useful animals have become very rare.

## Poison remains poison!

Poisons accumulate in metabolic cycles and and only decompose very slowly. Every year the bulk of bee populations die as a consequence of intoxication by agricultural pesticides. Even in small amounts these cause damage in development and memory as well as orientation in bees and other insects (TIRADO ET AL. 2011). Prohibiting the use of poisonous crop protection products and practising natural diversified farming, where poisons are not needed anymore, is long overdue. The big pesticide manufacturers try to exculpate themselves by establishing subsidiaries and research centres, whose official task it is, to render their poisons as of little harm to bees and by researching into the reasons of bee deaths. In truth, they generate self-financed studies supposed to prove the harmlessness of their own products or to direct the attention to the bees' other difficulties (Internet source 1).

## Genetically modified organisms

With genetically modified organisms (GMO) man interferes massively with the symbiotic interactions in nature thus completely messing up the natural balance in the Earth's ecosystems.

A genetically modified plant, which itself produces an insecticide to protect itself from infestation by beetles or other insects, cannot fulfill its proper task, that is, to serve as food for living creatures. GMO-plants that are also dependent upon insects for pollination but produce insecticides themselves, as a consequence kill those who are supposed to ensure their survival. This attribute may be passed on to wild flowers by cross-breeding. 90% of all genetically modified plants were immunised against certain pesticides on purpose, making sure that even more of the aforesaid pesticides could be

used in agriculture, or they were modified in such a way as to generate poisons to fend off unwanted creatures themselves. In doing so, useful insects like honey bees are often harmed, too. Furthermore, in most genetically modified plants the germination capacity is suppressed. As a result, they can only be reproduced by the 'creator' company through special breeding methods, thus securing it gigantic sales opportunities for the seeds in question. Genetically modified plants may, over the years, interbreed with wild flowers, too, disrupting their proliferation. Often, they infiltrate the target organisms by means of a transfer organism like a virus or other microorganisms and start to take effect there. **Already, genetically modified viruses have been found in the intestines of honey bees, too, deriving from the bees' food plants. These viruses have the potential to change the bees' immune system** (Internet source 2 and 3).

The drastic interference in the natural processes caused by genetically modified organisms are mostly motivated by greed of gain. They hold far too many risks for the bee, man and nature and they are not necessary. Nature, of whom man is a part, provides sufficient food for all creatures and, even in difficult situations, always offers intelligent solutions.

## The varroa mite

The ever increasing losses of bee colonies during winter are commonly attributed to the varroa mite. The mite was brought to Europe from Asia in 1977. It wounds the bees' larvae and in this way may introduce virus diseases, which can have devastating effects especially with bees whose immune system is already weakened. However, despite initial damage to the bees, beekeepers have found means to control the mites without any big losses of their bee colonies. **The varroa mite is not the cause for the dying of the bees**, rather it is another factor afflicting the bees. Today, beekeepers are still using organic acids in order to free bee colonies from mites. But because of this, the bees are not capable of developing any natural defensive measures. Tests have shown that, **under normal circumstances and without human interference, the bees start rebuilding stable populations (even though they may have suffered heavy losses in the beginning). But only those bees, who have learned to defend themselves against the varroa mite, survive** (FRIES ET AL. 2006). Also this process needs to be allowed up to a certain point to give the bees a chance to (re-)activate their natural self-defensive behaviour.

## How to support the bees yourself

- **In your own garden, plant insect-pollinating native plants and bear in mind that there should be manifold, permanent flowering from spring to autumn.**
- **Do not buy any ornamental plants with filled blossoms, because they produce very little pollen and nectar or none at all.**
- **For the sake of the bees do not use any pesticides in your own garden.**
- **Put up nesting aids for wild bees ('insect hotels').**
- **In your own garden, arrange for a drinking trough for bees and other insects.**
- **Buy honey from your local beekeeper.**
- **Buy organic food, produced without pesticides.**
- **Cut down on your use of radio frequency technologies.**
- **Support beekeepers who practice nature-orientated beekeeping.**
- **Treat the bees with conscious respect and gratitude.**
- **Inform your fellow man about the true reasons for Colony Collapse Disorder and hand out this fact sheet.**
- **Become a member of The World Foundation for Natural Science and help us to restore natural order on this precious planet Earth.**

## Natural beekeeping – What do the bees need?

The beekeeper himself may disturb the natural processes within the bee population by interfering. **In natural beekeeping the main focus is not on the harvest of honey but on the well-being of the bees.** Oftentimes though, in orthodox beekeeping every drop of stored honey is taken from the bees and replaced with cheap sugared water. This one-sided nutrition is anything but in line with nature. So far, more than 240 natural substances have been found in honey, among them many amino acids, vitamins, minerals and micronutrients. It is only these ingredients which activate significant genomic regions for protein metabolism, signal transfer and the immune system (MAO ET AL. 2013). Another survey shows that substances contained in the honey also activate those genes in the bee which are relevant for the decomposition of potentially toxic

substances like pesticides (WHEELER AND ROBINSON 2014). Sugared water does not do this.

In order to increase the number of bee colonies, the beekeeper often divides them as he wishes. Then, in most cases, a bred queen is forced upon the newly formed bee colonies, who are still suffering from the loss of their former queen. Often, even bees from different colonies get mixed together. But the splitting of a bee colony called 'swarming' happens all by itself, usually. In this case, the bee colonies themselves decide when it is time to split. Interference with this process, which is tantamount to the birth of a new 'hive mind' and is very sensitive, may severely damage the whole organisation and harmony of a bee colony.

Queen bees nowadays are sent all around the world. However, bees that were bred on the other side of the planet are not used to the conditions of their new environment. Generally, breeding also prevents natural selection. Mainly, docile bee colonies providing lots of honey are bred instead of those, which are best adapted to the environmental conditions and would secure the survival of the bees.

**It is the duty of the beekeeper to assist the bees in every possible way in their essential task of pollination and providing them with everything they need for this. Hence the beekeeper should consider himself the guardian of the bees and recommence to communicate lovingly, in thoughts and feelings, with the bees. It is only then that he will sense what the colonies entrusted to him are in need of.**

## Restoring natural order

For a few years now much has been reported under the title 'Colony Collapse Disorder' (CCD) or bee deaths about the massive losses of bee colonies, happening increasingly often all around the globe. Rarely though it is mentioned that the quoted numbers of colony losses only refer to those bees which are cared for by humans. But the sad truth is that because of the abovementioned impacts as well as the lack of suitable nesting sites, in Europe, Asia and America, wild honey bee colonies cannot survive anymore in the long run. **Bee mortality among feral honey bees is nearly 100%.** Man has changed the environment so significantly, that around almost the whole world, honey bees can only survive permanently with intensive human care. This shows how big the responsibility of the beekeeper is.

*Fig. 6: Beekeepers of the future will practice natural beekeeping where the main focus is on the well-being of the bees and not on harvesting honey, hence supporting the bees in their great task – the pollination of millions of flowers.*

In the Chinese province of Sichuan people are already experiencing what it means to live in a world without bees. Because the government thought that there were too many sparrows on the fields eating their fill and thus – according to human opinion – were posing a threat to the harvest, the birds were hunted. But when the sparrows were gone there was a plague of insects, subsequently. To deal with the insects in turn the whole region was poisoned with so much pesticide that all bees died, too. Today still, in some areas the pesticide load is so high that no bees may live there. For this reason fruit bearing trees must be pollinated manually by many thousands of workers every year. The pollen is collected in regions more to the south, then dried and, finally, with the beginning of the blooming period, applied to every single blossom by means of a chicken feather. Here, the bees were sacrificed for short-term profit. Let us learn from the situation in Sichuan. **Each part of creation has to fulfill its duty. If we recognise these duties and consciously support them as well as respect the underlying natural order we will be able to turn around the processes which are threatening the bees.**

All the influences outlined above affect nature as a whole and concern the honey bees, wild bees and other insects, the animals, human beings and plants likewise. Everything is connected. Often dysfunctions in nature can easily be identified with the bees first of all, because bees and men work so closely with each other. As shown in this fact sheet, solutions for the present problems do exist already and, at this stage, a great many people are working at restoring natural order in these areas, too. But in order to accelerate this process, people who lovingly speak for and work with the bees are needed most of all. That is why we ask you to please share this knowledge with your fellow man, thus helping to eliminate the true cause for the worldwide death of the bees.

**It is time for all of us to once again turn towards the bees and their essential task, showing them our gratitude and appreciation by our**

**deeds. Out of love for nature, let us create conditions which again provide the bees with a diversified and permanent nutritional base. Let us create a world free of environmental pollutants and technical radiation where men and bees are working together in mutual respect and freedom and where we are supporting the bees in their wonderful, irreplaceable service.**

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*Fig. 7: The 'swarming' of a bee colony is the natural way for a new bee colony to come into being. However, in today's apiculture this swarming instinct is mostly getting controlled and new colonies are created artificially by splits.*


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**Internet source 1:** http://rt.com/uk/176060-bees-population-pesticides-manufacturers/

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