

## BeeRing©: Site



**View of the BeeRing site:** Hexagonal-shape **BeeRing©** hut located in Vero Beach, Florida.



**BeeRing's hut front side:** Each of the six walls of the BeeRing© hut has six hexagonal-shape insertions that house six beehive habitats with open access for the bees from outside and a glass wall at the inside side to allow visitors inside the hut to appreciate the bee habitat .

## BeeRing©: Interior

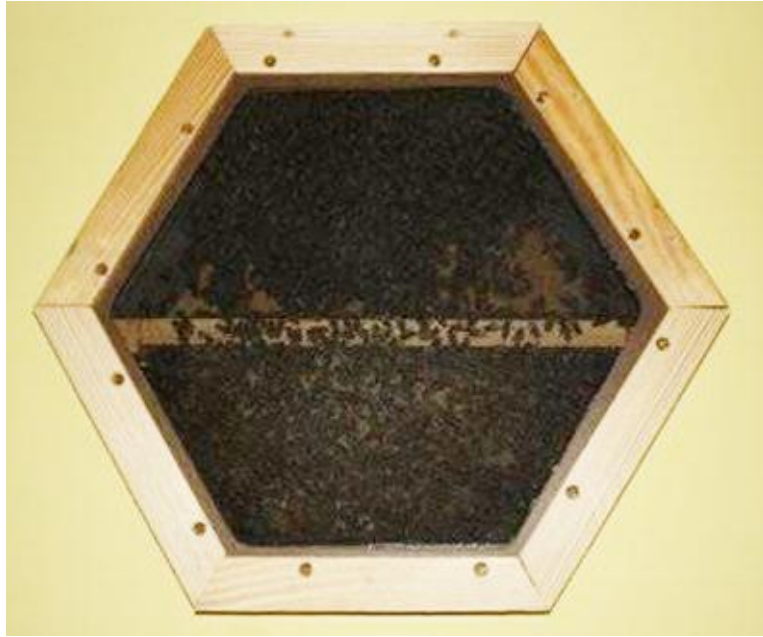


Shelves at both sides of the BeeRing© hut door are used to house hardware units that acquire and interpret information (sound and temperature) generated at the beehive habitats (hut hexagonal-wall insertions and outdoor beehives).



**Bee habitat Insertions:** Each of the six walls of the BeeRing© hut has hexagonal-shaped beehive habitats with open access for the bees at the outdoor side and closed at the indoor side by a glass.

## BeeRing©: Bee habitats at wall insertions



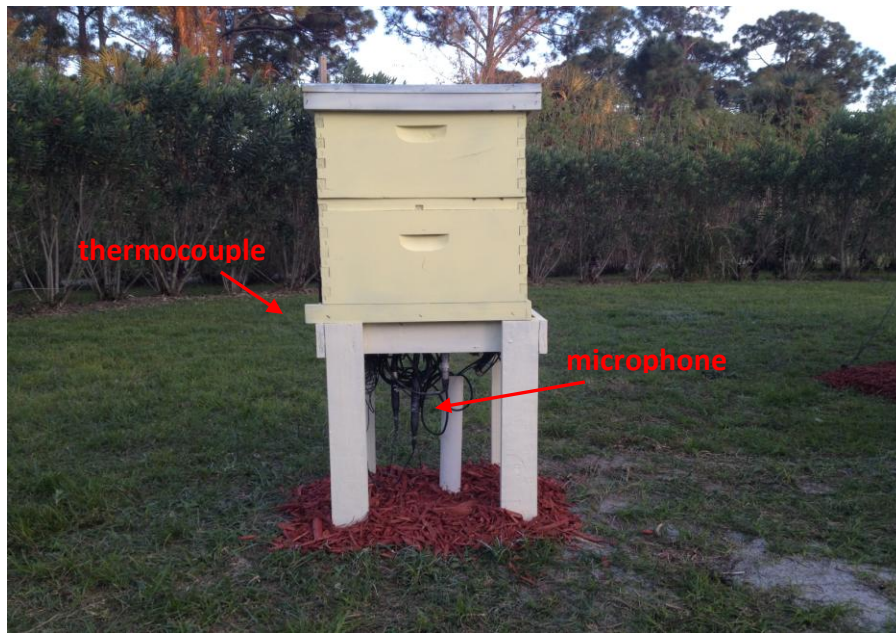
**Close view of a beehive-habitat insertion:** Bees have access to the habitat from the outside, the indoor side is sealed by a glass or a screen to allow visitors to see the bees at their habitat.



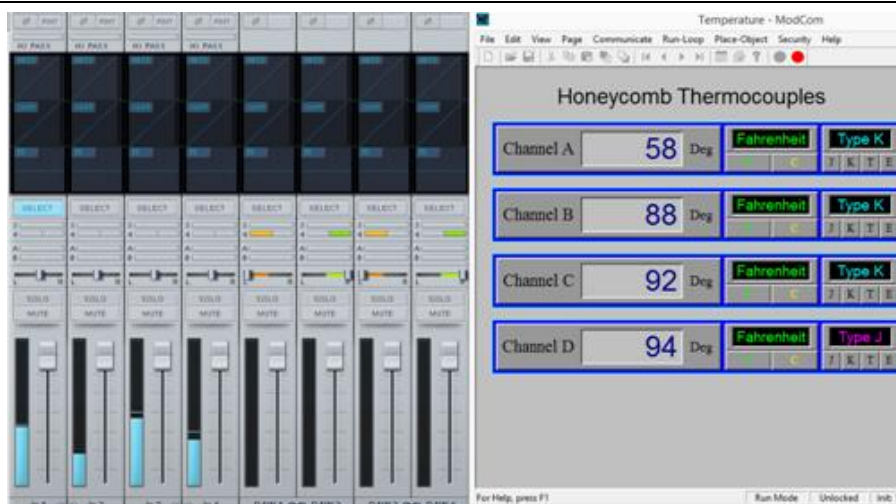
Beehive habitat insertions are equipped with microphones to record and reproduce bee acoustic signal inside the BeeRing® hut.



## BeeRing©: Research setup



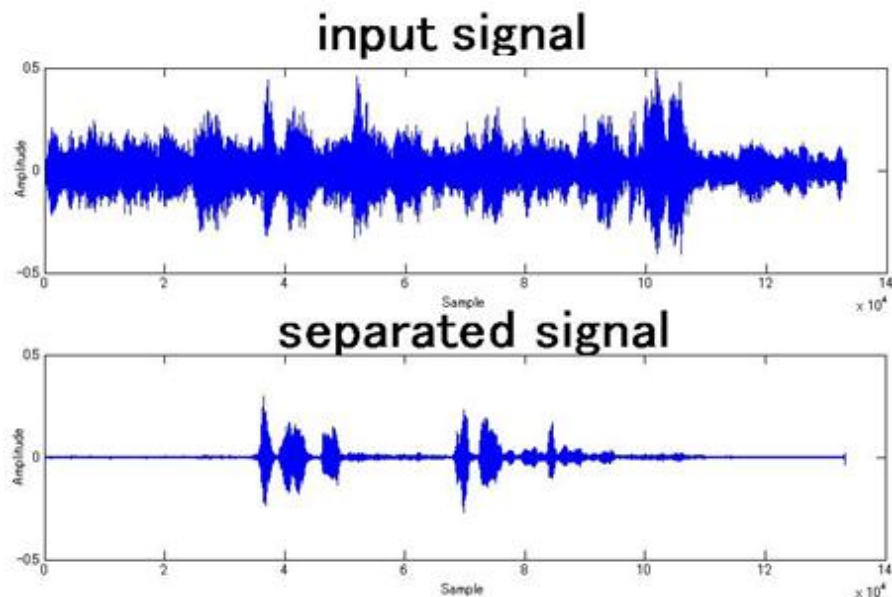
Microphones and thermocouples are installed on the hive bottom board to acquire sound (via microphones) and temperature (via thermocouples) to a) diagnose bee colony health conditions, b) analyze the mixed sound emitted by the bees and the queen, and c) separate their acoustic patterns via an algorithms currently being developed by a BeeRing© researcher.



Snapshot screen of a computer used to acquire signals from 4 microphones (4 blue bars at the left corner of the screen) and 4 thermocouples (channels A-D at the right side of the screen) to measure sound and temperature respectively at 4 different sites along the hive bottom board.

## BeeRing©: Priority Research Project

The objective of our key research project is to be able to study and interpret the acoustic signature patterns generated at the beehive colony by the bees and their queen. This interpretation method might be used to not only diagnose in a non-invasive way the wellness of the beehive colony but also to confirm the presence of the queen, critical in assessing the honey production activity.



This study requires to tackle Blind Source Separation (BSS) of known acoustic mixture signals acquired by different microphones to yield the unknown individual acoustic signals emitted simultaneously by the bees, the queen, and environment. In BSS there is not prior knowledge of the signals emitted by the bees and the queen that make up the acoustic mixture signal (sound acquired and recorded by the microphones).

BSS method is currently used in diverse fields, such as prenatal diagnosis to monitor and assess the fetal heart activity. Electrical signals from several probes attached to different parts of the mother's abdomen are acquired and recorded. Each of the acquired electrical signals is a mixture of signals emitted simultaneously by fetal and maternal heart rate, mother and fetal breathing rate, and inherent signal noise. The BSS method is used to separate the fetal heart rate from the other signals emitted by the mother body, such as heart rate and breathing. Once the fetal heart rate is separated, an assessment of the fetal heart can be performed.

### **BeeRing©: Functions**

- High-quality relaxation, meditation, oration , healing and hypnosis featuring pure sounds from honey bees living in their natural habitat.
- Brainwave entrainment designed to synchronize visitor brainwaves to specific frequencies emitted by the honey bees to maximize visitor relaxation or achieve desired mental states.
- Natural bee venom therapy, a technique that about 50 U.S. physicians have reported having good results treating not only pain but arthritic conditions, multiple sclerosis, and other health woes. Other practitioners treat high blood pressure, asthma, hearing loss, and even premenstrual syndrome with bee venom. It has been reported the use of bee venom against autoimmune diseases.
- Research investigation on health, behavior, and communication signature language of honey bees. The system provides an economically viable means of conducting large scale studies as well as investigating individuals beehive habitats.

### **BeeRing© Objectives**

- Take the kids to the BeeRing© and teach the science class on site to not only deliver formal education but also raise awareness on the kids about the crucial role of the bees in human life and the ecosystem of the planet. Kids should experience bee activity and learn that bees play an important, but little recognized role in most terrestrial ecosystems where there is green vegetation cover for at least 3 to 4 months each year. In tropical forests, savannah woodlands, mangrove, and in temperate deciduous forests, many species of plants and animals would not survive if bees were missing.
- Facilitate the conditions to conduct research on bees in their natural habitat. Research on acquisition and interpretation of the sound emitted by the bees and the queen is currently being conducted at a BeeRing© site located in Vero Beach, Florida. BeeRing© is designed to smooth the progress on needed research that requires bee natural habitat. Keep in mind that bees are responsible for pollinating 30% of all the food that U.S. consumers eat and research that might be conducted at a BeeRing© site is urgently needed to learn what is causing bee collapse.
- Be part of botanical gardens and build more in municipal parks to promote people responsiveness to the fact that conservation of bees and other pollinators is an urgent issue. People need to learn that without bees there would be no flowering plants, and without flowering plants there would be no bees. Without bees biodiversity would not be so great.

We are a non-profit corporation based on the BeeRing© concept for the purpose of the preservation of the bees and beekeeping activity through education and research. The foundation will provide a vehicle to channel grants, gifts and bequests into building BeeRings to conduct bee preservation awareness activities, education, and basic research.

## **The Healing BeeRing© farm project**

( Main Campus Vero Beach , Florida, USA)

A comprehensive Naturist farm that focuses on the concept of emotional and physical pain.

### **About Us?**

We are dedicated to help with the healing of the suffering of the mind, soul, and body of the human being.

### **How we do it?**

We combine millenary techniques with very innovative complementary treatments.

### **Treatment Modalities**

#### **Bee sentence and meditation therapy**

The main idea is to place a patient inside of the BeeRing for his/her initial assessment and recording the sounds of the beehive to analyze the patient's needs. After this first encounter a follow up will be given in order to record the sounds of the bees for a second time with the patient to compare and see how the patient's emotional or physical health has been improving.

#### **Venom Therapy**

Using bee stings we treat several different types of pains including Arthritis, Joint stiffness and joint deformities.

#### **Hives Bio-Product Derivatives**

We propose the usage of Hives bio-product to treat a wide variety of diseases, including several types of cancer , chronic inflammation, chronic infections and debilitated immune system as well as a central component of weight reduction programs.

- Propolis
- Royal jelly
- Raw Honey
- Bee wax
- Air from the hives

### **What the program consists of.**

It is a program tailored to fit each individual's needs at a certain point in their life where they might be experiencing emotional or physical suffering.

### **Mainly includes:**

- Initial Physical exam and diagnosis by a licensed physician.
- Initial assessment by an expert in sentence and meditation
- Initial assessment by Nutritionist
- Final multi-disciplinary team analysis and diagram (with patient present) of the final plan to follow and estimated length of the whole process.

### **Our Facility**

- Bee farm
- BeeRing©
- Physician office with a waiting room, office a stretcher, desk , basic tools, good illumination, code cart if venom therapy applied.
- Exercise Room