

PROJECT DESCRIPTION

THE LACRIMA FOUNDATION

A proposal for funding to support conservation and protection of one of the Earth's most important inhabitant - The Honey Bee, an initiative by The Lacrima Foundation SCIO.

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01

ORGANIZATION BACKGROUND

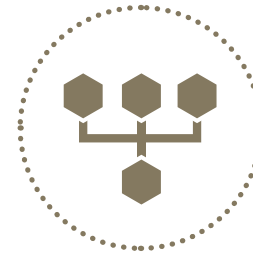
The Lacrima Foundation SCIO is a non-profit, registered charity with its Principal Office in Edinburgh, Scotland. We are an operational non-government organisation, meaning we plan and carry out boots-on-the-ground projects to accomplish our objectives. This requires a great deal of careful planning, communication, and local involvement for each project. Our Foundation is working within the framework of advanced development of the environmental protection and improvement, focusing on the conservation and protection of honey bees by combining the ancient method of rewilding and the latest high tech method of hive monitoring.

Our goal as an organization is to accomplish the following:



Improvement of the Health of Honey Bees

Since antiquity, beekeeping has always been considered an activity full of wonder with the bee regarded as a sacred animal. However, the conventional beekeeping disrupts and endangers, ever increasingly the lives of bees colonies. We integrated all the available research data and based our conservation strategy on a holistic approach to beekeeping. We use traditional Bashkir man-made cavity log hives as the main medium of our strategy - providing the bees an opportunity to live in an undisturbed ecosystem in synergy with their seasonal rhythms



Education and Communication

A key part of the project is to expand the knowledge and understanding of our world and the important role of honey bees in it. Hence, we are developing seminars and lectures as our team has an extensive knowledge of the subject and over 100 years of combined experience. We help local beekeeping communities to develop an understanding of how to improve the health of the bees sustainably and to raise people's consciousness through a holistic approach to beekeeping and thereby reminding about the long forgotten instincts and the true understanding of intricate interrelationships, and life processes in nature.



Create Pollinator-friendly Green Spaces

A subsequent step in our strategy is to create pollinator-friendly urban green spaces. Both natural nest habitat and the surrounding environment are key aspects for preservation and renewal of health and resiliency of honey bees. Therefore, the restoration of natural bee habitat is an essential part of our effort to restore genetic diversity, adaptability, and vitality of honey bees. We hope to further our progress to reaching these goals through conservation and protection of one of the Earth's most important inhabitant - The Honey Bee, the project outlined in this proposal.



02

PROBLEM STATEMENT

Across the world, we see the devastating impact of intensive agriculture, pesticides and climate change on the ecosystems that support our ability to grow food. Combined with the domestication of bees, taking them from their natural environment to man-made homes - this is all inevitably leading to the critical condition of the bee health. A honey bee as a major pollinator is critical for food production and human livelihoods as it directly links wild ecosystems with agricultural production systems.



03

PROJECT OBJECTIVES

Completion of this project will further our overarching objectives, including:



Making a fundamental difference to the beekeeping communities in terms of expanded knowledge of the bees health in the UK, the Czech & Slovak Republic, Russia and the USA



Offer open source, global strategies that helps the beekeepers to protect honey bees throughout our revolutionary approach.



To further develop the advanced environmental approach for the conservation of the honey bees by applying the ancient method of rewilding and the latest high tech methods

The project will also accomplish these additional goals:



Raise community awareness about conventional beekeeping method issues and their impact on the managed colonies due to deviation from the bees' natural life-cycle.



Encourage beekeeping communities to work as partners in the planning, implementation and monitoring of the development process.

04

PROPOSED METHODOLOGY

The methodology section defines the overall actions to be taken to investigate and resolve problem of high global bee-mortality rate and the rationale for the application of specific procedures or techniques used to identify, select, process, and analyse information applied to understanding the problem. In this case, working at the grass-roots level with the semi-nomadic people of Bashkortostan helped us to create a proficient strategy to restore health in the bees population and to highly likely end the cycle of colonies destruction.



We aim to fully engage with our conservation strategy and provide the following research and literature to underpin The Lacrima Foundation methods,

A

Our strategy has been designed around the installation and care for natural apiaries using either artificial cavities in living trees or man-made cavity log hives installed within the higher section of the tree trunk. Not only do these artificial hives support nest integrity and mimic natural nest parameters of honeybees, but the wild populations of honeybees show extraordinary resilience and high levels of health when living in these types of hives - thesis confirmed by research data from Bashkir Scientific Research Centre for Beekeeping and Apitherapy. The use of man-made cavity log hives as a main vehicle of our conservation strategy, provides the bees with an opportunity to live in an undisturbed ecosystem in synergy with their own seasonal rhythms. Natural nest habitat is the key aspect of preservation, resiliency and the renewal of honey bee health. Therefore, the restoration of natural bee habitat is an essential part of an effort to restore genetic diversity, adaptability and vitality to honey bees.

B

In terms of applicability of our methodology to other beekeeping communities, we can confirm that the techniques of building log hives are pretty straightforward and are easily applicable to any beekeeping communities worldwide. Anyone from the public interested in building their own log hive will be able to learn the technique via our practical workshops or by accessing the instructions and hive designs which will be readily available as an open source.

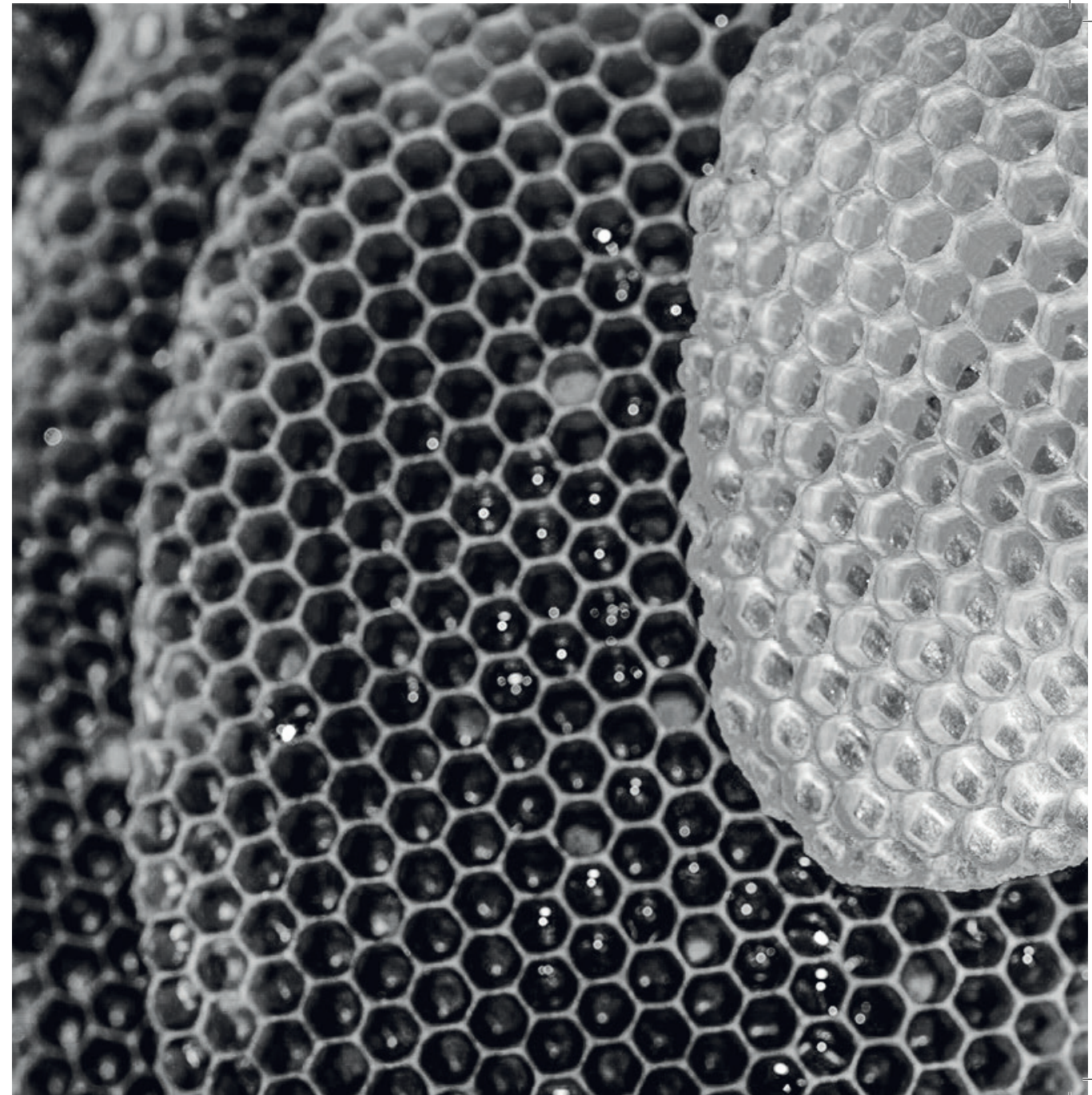
C

Our purpose is not to discard the intellectual accomplishments of our scientific age, but to actually utilize them in a form of using the latest High Tech Hive Monitoring System. This technological innovation system will essentially complement the admirable achievements of the natural, physical and psychological sciences of our time. Remote monitoring enables the collection of an additional layer of data to compliment that collected through inspections, observations and laboratory analysis. As well as enabling the study of individual log hives in great detail, our system provides an economically viable process of performing wide scale geographical studies involving hundreds of log hives. Participants in experiments can be easily be added, the monitors can be fully managed and configured remotely. Moreover, the Hive Monitoring System provides unparalleled data for our researchers investigating bee health and behaviour.



Literature References:

- Scientific Research and Studies specialized in beekeeping and apitherapy by Burzhan Wild-Hive Honey Bee A.M. Mellifera in South Ural: Rustem A Ilyasov (2016), Bashkir
- Scientific Research Institute based in Ufa, Republic of Bashkortostan, Russia
- Following the Wild Bees: Thomas D. Seeley (2019)
- Bees: (CW351) Rudolf Steiner (1998)
- What Is Biodynamics? A Way to Heal and Revitalize the Earth: Rudolf Steiner (2004)
- Encourage beekeeping communities to work as partners in the planning, implementation and monitoring of the development process.



05

PROJECT ACTIVITIES

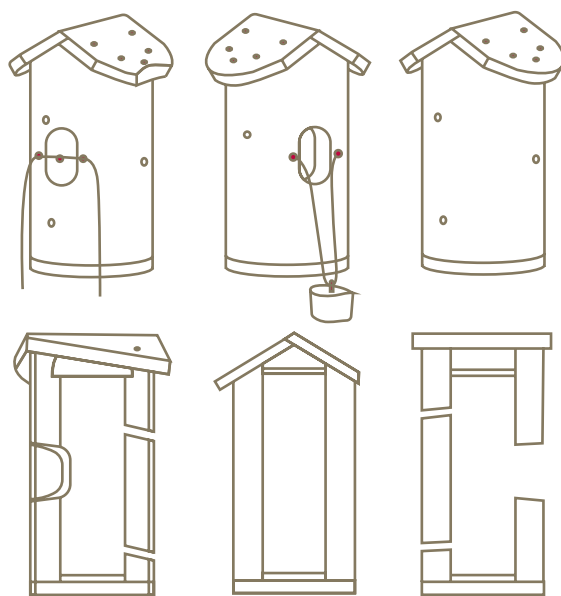
Our dedication to conserve and protect the honey bees will include the following strategies:

1

Practical Workshops & Training

In these live events, we will introduce our log hives designs and will proceed by adoption a step by step procedure of making vertical log hives, required tools and implementation of AI / high tech hive monitoring devices.

We expect these gathering will create a harmonizing environment, which allows for interactive learning and discussions among participants.



2

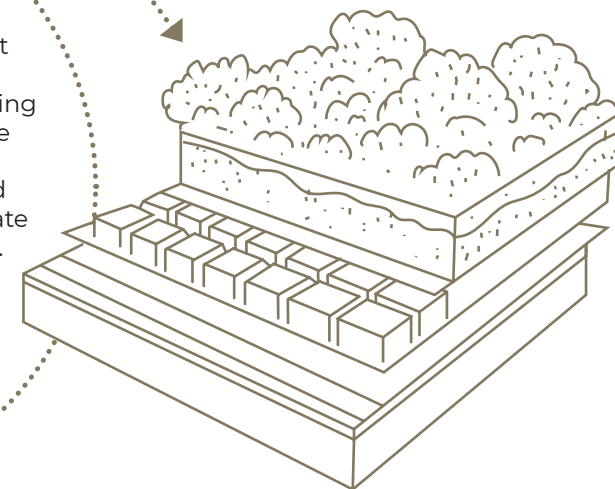
Seminars & Lectures

Our seminars and lectures are efficient way of widely introducing the concept of natural beekeeping to any interested member of public. Our speakers will explain and demonstrate that wild bees colonies living in forests are thriving, while the managed colonies living in beekeepers' apiaries are in crisis. Also, we will look at the ancient ways of apiculture, the craft of caring for bees in living trees. The rewilding of honeybees and nest restoration as essential approach for honey bees to survive

3

Creating Bee-friendly Green Rooftops

The last strategy will be development and creation of bee-friendly green spaces. As urban bee habitat and foraging possibilities have become scarcer, the biodiverse rooftops can be seen as extension of natural habitat flora and fauna, with high water retention, climate moderation and pollution reduction. We decide to cooperate with ZinCo Green Roof System Ltd, due to their green roof planting choices and solutions playing an important part to attract particular bee species.



06

PROJECT RESULTS & BENEFITS



The impact of conservation and protection of the bees will be felt in short, medium, and long terms. The following are the project results and benefits which will be realized upon completion:



Short-Term (Completion – 6 months)

Execute and deliver our concept of the honey bee conservation strategy to successfully finish off the pilot phase of the project in Bashkortostan, Russia. A continuous monitoring system will be implemented as part of project activities as indicated above. Mid-term financial and narrative report will be submitted after six months following initiation of the project.



Medium-Term (6 months – 2 years)

Implementation of the pilot short-terms experiences and results into the conservation projects in Scotland and the Czech and Slovak Republic. This stage helps us to learn how a large-scale project will work in global practice and determine the dynamics for further step of scaling-up. Final narrative and financial report will be submitted within two months after completion of the second phase of the project. Regular reviews and evaluation will be undertaken at four month intervals



Long-Term (2 years & Onward)

In this phase, the project will be successfully established and anchored in at least three countries with a sufficient base of strategy supporters, practitioners and volunteers. Additionally, implementation of the conservation strategy will be spread further to Russia and the USA and we will further develop a horizontal scaling-up strategy in pre-selected suitable beekeeping communities via expansion and replication of knowledge, skills and resources acquired in previous steps. Monitoring and evaluation reports will be shared with donors and partners regularly in a timely manner.

