Network to Innovate - Save the Pollinators

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KONSTANTIN M FEB 08, 2022 12:53PM UTC

Honeybees in greenhouses and breeding of domestic bumblebees in Finland



There is a quite similar project in Ireland

Farmers support Great Yellow Bumblebee project in north Mayo | Connaught Telegraph

TWENTY-SIX farm plans have been put together as part of a project to protect the Great Yellow Bumblebee population in north Mayo.

CONNAUGHT TELEGRAPH



Thank you for this tip! - Anna-Maria — ANONYMOUS

Website, links

Is there link 1) to your organisation; 2) to this project? I'm very interested especially also to these excellent pictures of breeding of the bumblebee's. Just to share the possibility for greenhouses

Hi! Here are links to my organization and our EIP-project: 1) https://hunaja.net/liitto/; 2) https://hunaja.net/liitto/hankkeet/kpkphanke/. If you are interested in having more pictures than what is found from the web pages, please let me know and I will send you more (anna-maria.borshagovski@hunaja.net). Until we get a media bank in our project webpage. - Anna-Maria — ANONYMOUS

Honeybees vs Bumblebees

Do you know why honeybees worked better in greenhouse than bumblebees?

Hi! I don't know this yet. One possibility is that the nests were small and therefore the spaces were not "crowded". However, we need more tests before we can say wether honeybees work objectively better or not. - Anna-Maria — ANONYMOUS

During the winter period you keep them inside? In laboratory or...?

Hello! We mated new queens and put them in "wintering pods" (plastic jars with some material for the bees to burrow themselves, in cold and moist conditions) before our bumblebee nests came to their natural end in the end of summer. The idea is that the mated queens would be part of our next breeding patch. Wintering is a crucial point in bumblebee life cycle and it is important to test good methods for successful wintering. - Anna-Maria — ANONYMOUS

How did you collect the domestic bumblebees?

Hi! We organized queen collection widely around Finland. Anyone interested in helping could catch wanted bees for us. First, we had a webinar where we gave instructions to species identification and the collection in general. Then the persons in charge of collecting the bees from volunteers sent them to breeding locations. The bees were cached with bug nests or straight to plastic collection jars (the latter was possible early in spring when the bees were still searching for nest places and not high in trees). - Anna-Maria — ANONYMOUS

For domestic bumblebees only Bombus terrestris?

Hello, We bred four species, and one of them was Finnish Bombus terrestris. We hope to continue with other species, because even if we have established populations of B. terrestris in Finland, it is an alien species. Imported bumblebees are all B. terrestris. - Anna-Maria
— ANONYMOUS

Was it difficult to acquire partners for the bumblebees project? How's the project viewed among the local people?

Hi, people have been very interested in the project. Pollinators have had good publicity before in Finland and this project continues keeping the interest up. It has been quite easy to find new partners and collaborators. I don't know if it was easy to collect our EIP group or not. I would have to ask it from those who started this project. :) - Anna-Maria — ANONYMOUS

Are you willing to teach/tutor people from the outside? (Agnieszka and Piotr)

I personally would be happy to! Let's stay in touch and see what could be done. :) - Anna-Maria — ANONYMOUS

Will climate change affect breeding and system greenhouse-pollinator in Finland?

Hi! This is an interesting and challenging question. I don't think that climate change would affect bumblebee breeding, not now at least. Some animals and plants benefit from climate change and can expand their habitats to norther parts in Finland, some populations decline. Maybe changes in our bumblebee species composition will affect the breeding material in the future. It is difficult to say how climate change affects greenhouse and tunnel cultivations and pollinators there, but it may affect beekeeping in general and through that the methods used in greenhouses too. I could speculate that increasing temperatures would cause pressure to control excessive temperatures in closed spaces, and the well-being of pollinators in those spaces becomes even more crucial then. - Anna-Maria — ANONYMOUS

I was just curious on this issue, if you had considered this, maybe for future projects, or already identified some key points. Very interesting project, thank you for the presentation and reply.
— ANONYMOUS

Data-driven beekeeping for productivity and sustainability



Truely inspirational example from Hachaton to practice

Thank you, it's a bit crazy but amazing journey! — ANONYMOUS

What kind of information could be received from sound frequency data inside the hives?

Predicting swarming, stress level of bees, colony health issues. However, it takes further development, and critical mass of data.
— ANONYMOUS

How long would it take for the investment to pay for itself?

Calculate here: https://beesage.co/how-to-increase-honey-production This is assuming a low-budget setup of using only one Scales per apiary. — ANONYMOUS

How much time it takes from IoT hackathon to final product?

It could take infinity because I don't believe in "final product". Our products/system are continuously improved. However, we launched the first version only a few months after realising that Scales is the initial product to start with, which unlocks all the others.
— ANONYMOUS

Do you have a pilot group of farmers to test and comment on your hivemap functionality targeted to farmers?

Not yet! Please get in touch if you have some ideas. We are open to collaboration. — ANONYMOUS

Are you interested in EIP transnational cooperation? What I mean, cooperation between two similar initiatives from at least two EU countries and financed by Agricultural public fund.

Absolutely. We are in some talks already but please get in touch in order to assess relevance/potential/capacity. — ANONYMOUS

Rural women protecting bees



Just a piece of background - Rural Homemakers' Clubs are village-level organizations that have been thriving in Poland over the past 5 years thanks to small grants. They have existed since the second half of the 19th century. There are well over 10000 around the country. — ANONYMOUS

Who initiated this cooperation - the bee-keeper, the women's group?

The rural women's club came up with the idea to have their own brand of honey. As they were inexperienced, they looked for someone who could guide them, and ended up contacting the "Miód and Malina" Foundation. — ANONYMOUS

What has your experience been as regards local farmers willing to listen to their bee-keeping neighbours and change their agricultural practice?

At first, the farmers were wary, but they're glad to cooperate now. They ask for tips regarding the bees, contact the Women's Club with questions, they seem very eager to talk about this and work together. — ANONYMOUS

How the farmers have experienced this beekeeper-farmer cooperation? Do they understand the benefits easily?

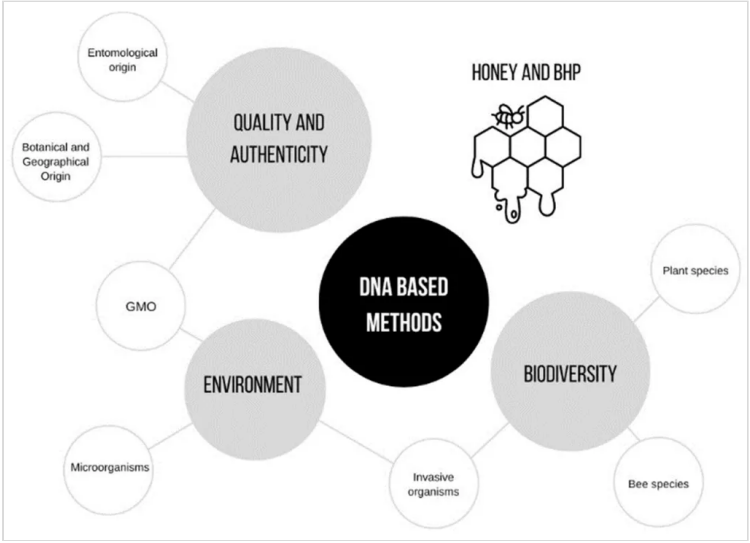
The farmers have now seen first-hand that working with beekeepers increases their crops and profits. Thanks to this, they have changed their farming logistics to implement bees, as they're understandably interested in keeping these increased profits. — ANONYMOUS

How many neighbouring women's clubs have you trained?

At this point, we're at the talking stage. About 15 neighboring clubs are very interested in the project, while 5 clubs have already decided to join - if they don't have to invest their own money, and thus, if we find a sponsor, that is. Ultimately, the need for money is the largest obstacle in the path of our project. — ANONYMOUS

Could you establish an EIP OG based on your current work?

Development of a DNA-based method for the identification of honey origin and composition



How much time it takes to analyze one honey sample?

About 2-3 weeks. — ANONYMOUS

32 or less samples 2-3 weeks — ANONYMOUS

As you will start getting data about the environment of hives/bees (based on the DNA profiles), are you planning to construct a database or so or somehow to visualise your results (perhaps to include also location of the hive to really map it)?

The main focus of this project was the development of methods that we can use to analyse honey. But we are working also on visualization of the results of DNA anaysis to show interesting information about Estonian or other honey samples. Good ideas how to present such a multilevel information on a map are welcome kairi.raime@ccht.ee. — ANONYMOUS

Feedback for the growers

Have you been able to give a feedback to the Estonian beekeepers about their sample honey? What has been the most surprising discovery in Estonian samples?

Yes, we have given some feedback already and plan to give. Most suprising? To see the whole picture of one honey production world, its unique. And estonian honeys are very species-rich. — ANONYMOUS

How expensive would it be to make a DNA analyzis for one example of honey?

Depends on how deep picture about honey we would like to see. For 300 euros we can get 10-20 milions DNA sequence (reads) per sample, which is more than enough information in our project for beekeepers (about the plants, about pathogens/pests etc). For specific scientific research focused on specific organism groups or specific topic may be necessary to see more deep picture. — ANONYMOUS

You can also share and promote your own project here - or a call for co-operation



EU CAP Network 'Reversing pollinators decline'

The EU CAP Network will organise a workshop on 'Reversing pollinators decline' in June 2024. To stay updated on calls for participation and workshop details, please subscribe to the Innovation & Knowledge exchange | EIP-AGRI newsletter (https://eu-cap-network.ec.europa.eu/newsletters/our-newsletters) and follow the EU CAP Network on social media (Twitter: https://twitter.com/eucapnetwork – LinkedIn: https://www.linkedin.com/company/eu-cap-network – Facebook: https://www.facebook.com/eucapnetwork – YouTube: https://www.youtube.com/channel/UCY-BQU2WlekydjKJ8592ipw).

EU Pollinator Hub

The EU Pollinator Hub is a community online platform to integrate in a harmonised way any bee, beekeeping or pollinator-related data in the EU and beyond.

There is strength in numbers, but numbers need to be comparable so we can help decision making.

Here you can raise a topic of your own interest or express your needs in regards to some specific issue



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