

# Interreg



UNIONE EUROPEA  
EVROPSKA UNIJA

## ITALIA-SLOVENIJA



### BEE-DIVERSITY

Progetto standard co-finanziato dal Fondo europeo di sviluppo regionale  
Standardni projekt sofinancira Evropski sklad za regionalni razvoj

# THE SEASON HAS BEGUN

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Due to the warmer climate in Italy, the growing season starts earlier. Now their bees are much more developed than the bees in the cold Gorenjska region. In Italy, measuring equipment has already been installed in pilot areas.

Link to measurements:

<https://main.beehivemonitoring.com/37e95a8762c24a73a522faa81438fc61>



Picture 1: Installation of equipment in the pilot area.

In Italy, they are beekeeping with another breed of bee called the Italian bee. In Slovenia, we are beekeeping with the autochthonous Carniolan bee race. The Carniolan and Italian bees are very similar to each other, morphologically and also genetically. The difference between them is in colour, communication, and family development cycles. The natural zone of hybridization of these two races appears in the west of Slovenia and the east of Italy. They can mate with each other because both races are the same species of *Apis mellifera*. The reason that the two races do not mix at all is the climate because each is adapted to its own type of climate. Italian to sub-Mediterranean, Mediterranean climate - warm. The Carniolan bee in the continental, sub-alpine, alpine climate - cold.



Picture 2: Carniolan honey bee race Picture 3: Italian honey bee race

Due to the sub-alpine climate, bee families in Slovenia have just started their development. The first spring plants are already finishing flowering. In colder places, they are still seen in full bloom. These are: snowdrop, spring snowflake, winter heath, primrose, spring crocus, hellebore, willow ivy, other willows, hazel, cornelian-cherry.

The following species begin to bloom: wood anemone, blackthorn, violets, dogtooth-violet, blue-eyed-Mary, colt's-foot, red dead-nettle, hollow-root, marsh-marigold, dwarf masterwort, liverleaf, lesser celandine, lungwort, ground-ivy, daisy, Siberian blueberries, cherry plums and plums, and cherries in some warm places.



Picture 4: Flowers of a cornelian-cherry

On Thursday, March 18, 2021, in the pilot area Stražišče near Kranj, we set up a stand for bee families, which we will monitor during the project and sample pollen from them. We brought the

bees with a tractor-trailer. I have to thank my family and friend for their help. Father allowed me to set up a stand on the plot, a friend helped set up the stand, my brother ploughed the wood, concrete bricks and transport, and my mom helped me load and stack the hive. The hives are quite difficult to lift. The average beehive weighs about 45 kg. I can't lift it myself, and because of its boxiness, it's hard to carry on its own.

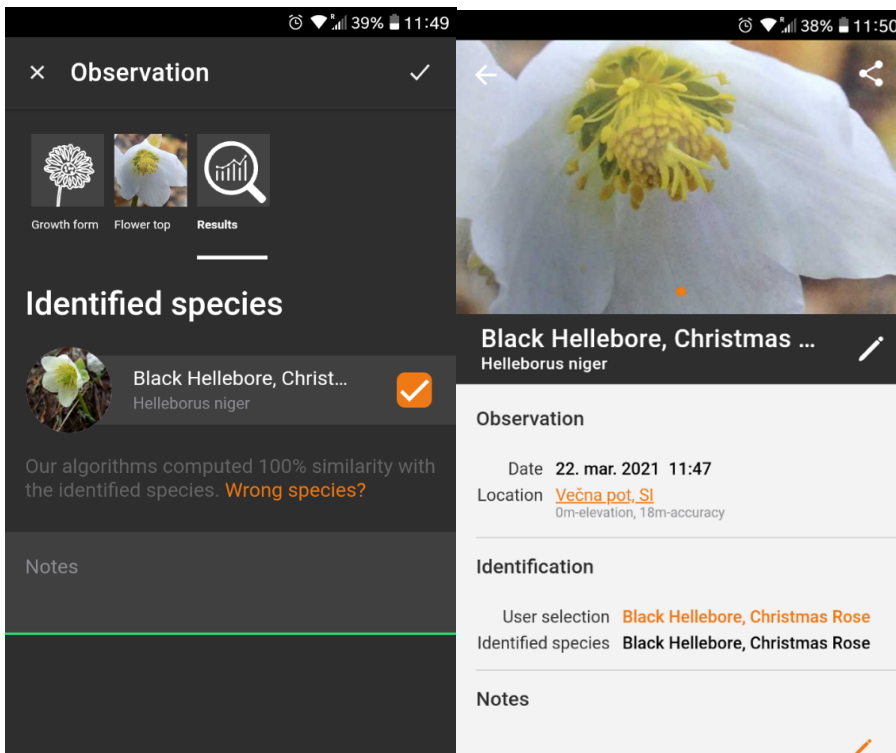


Picture 5: Stražišče near Kranj, Slovenia stand and work team.



Picture 6: The mass of the hive being weighed.

This week we are starting in Gorenjska with an inventory of vegetation around beehives in pilot areas. We will use the Flora Incognita application from the Ilmenau Technical University in Germany to help us determine the species. The application is free and can be downloaded by anyone interested in plant species. We will photo-document the plants and determine their location.



Picture 7: The result of the Flora Incognita application

Hunting cameras will also be installed at beehives in the pilot areas. Here are some photos of random passing animals from the test camera.



Picture 8: Testing beehive stand during day time.



Picture 9: Deer.

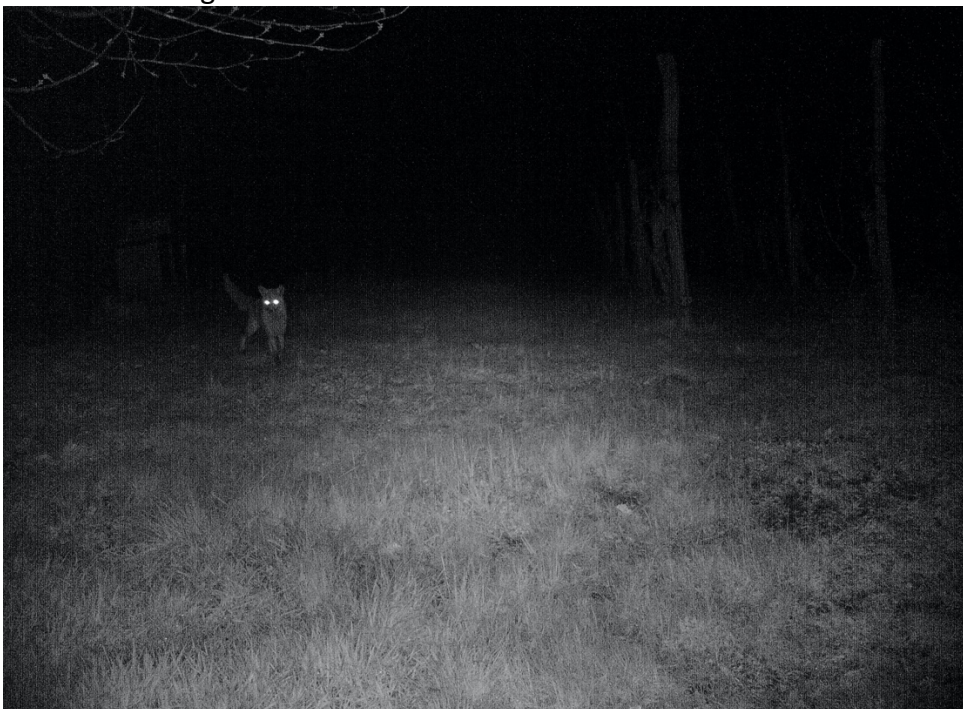


Picture 10: Rabbit.



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Picture 11: Badger.



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Picture 12: Fox.