Beekeeping Pollen Atlas 1.0 2017

Made by ShiNET Kft. Coordinated: Rőzséné dr. Büki Etelka

BeekeepingPollenAtlas contains the major plant species belong to the Hungarian spectrum type, distinguishing species belong to the spectrum range of the Robinia (black locust) honey from the non-Robinia (black locust) honey. It also contains the nectar and pollen sources of the melliferous plants and the frequency of visits (quite, sometimes, rarely) based on bibliographical data. In case of unifloral honey the representation of the main species is marked such as under-represented, over-represented, normally represented. The morphological characteristics of the pollens such as polarity, outline, shape, aperture, exine structure, and some other useful notes together with their bibliographical information are represented.

Photos of the coloured glycerine fuchsine jelly preparations and uncoloured glycerine jelly preparations of natural conditioned pollens retrieved from anthers were taken at 400 x magnification mostly in polar view and equatorial optical view.

Next to the pollen photos can be found all morphological features such as polarity, outline, shape, aperture, exine structure, and some other useful features derived from the literature. The size of the pollen can be found on the photos.

In Species menu the software allows for grouping of pollen photos according to their species or family names or it also allows sorting them alphabetically by clicking on the name of the column.

The grouping can be done by different point of view according to the narrowing criteria, and the results can be printed or exported to an excel sheet.

<u>Classification</u> can be carried out by selecting different species at the same time or by selecting families one by one or by selecting species derived from the Robinia or from the non-Robinia honey. Plant species can also be sorted according to pollen morphological features such as polarity, outline, shape, aperture, exine structure, and according to some major information added to the comments.

Data are allowed to be exported with download function to an excel sheet and can be printed as well.

Printing can be done by selecting one or more species or families as well as by using any of the narrow criteria.

In case of printing the main information such as the type of the spectrum (basic spectrum, residual spectrum), the type of the plant (nectariferous or nectarless), the frequency of visits (the type of nectar source: quite, sometimes, rarely; the type of the pollen source: quite, sometimes, rarely), and the classification of the pollen representation can be found under the photo.

In print preview the morphological features with their bibliographical information are represented in the side panel.

The following name indexes of the plant species can be found in the list menu:

- scientific and English plant and family names (list I-IV)
- species can be found in the Hungarian Robinia (black locust) honey (list V)
- nectariferous or nectarless plant species (list VI)
- frequency of bee visits (list VII)
- representation of plant species in honey (list VIII)
- morphological features of plant species (list IX)
- flowering time of plant species in Hungary (list X).

The BeekeepingPollenAtlas includes, but not limited to, only a part of the Hungarian plant species, but I hope, it gives useful information for the pollen analysts.

Hungary, Biatorbágy, 2017.

Rőzséné dr. Büki Etelka certified horticulturist, microscopic analyst consultant apiculture

Beekeeping Pollen Atlas 1.0 CD / Help

296 plant species, 1184 pictures, I-X. Listen

Menu: Introduction — Species — Lists — Help

<u>Introduction</u> menu contains a short description about melissopalynological analysis and basic technical information offered by the software.

<u>Species</u> menu contains the scientific and English plant and family names of all species represented in the Beekeeping Pollen Atlas. Columns can be sorted alphabetically by clicking on the title.

By default plants are grouped by species, which can be switched to family names. Additional features are available by clicking **Export**, **Print**, **Narrow** or **Next**.

Export: detailed information about all plants or the selected and sorted species appear in an excel sheet which can be saved or printed. The excel sheet includes the following information: scientific and English plant and family names, spectrum range, type of the plant, frequency of bee visits, representation, subtitle of the photos and the pollen morphological features such as polarity, outline, shape, aperture, exine structure and some major information added to the comments.

Print: by default all species – 4 photos per species – are printable with their dimensional specification and descriptions.

Photos of the coloured glycerine fuchsine jelly preparations and uncoloured glycerine jelly preparations of the species were taken at 400X magnification mostly in polar view and equatorial view.

The default print settings can be changed freely according to the sorting and filtering criteria.

In this view you can switch between species and three image sizes are available according to the screen real estate. Saving here will generates a QRP file, which can be open again by this software.

Narrow: by default both the Robinia and non-Robinia honey appear, which can be change to Robinia or non-Robinia honey only.

Plant species can be grouped by the pollen morphological features. After selection click OK. The selected species can be exported, the photos can be printed and clicking the Next button the morphological features of the selected species appear next to the appropriate photo. Morphological information can be found in the excel sheet created via Export.

Leaving the Narrow selection click Reset selection button and then OK.

Next: selecting species by their family names their morphological description appears next to their photos.

This function allows you to export according to the previous selection and to print images with description. You can switch between species using arrows.

The morphological data originates from a referenced bibliographical sources.

Click on the image to enlarge it for detailed examination. Clicking Print button allows you to print the selected photos and its description alone. To leave enlarge view click on the image again.

Lists contains the following indexes:

- I. Index according to the scientific name of the plants
- II. Index according to the English name of the plants
- III. Index according to the scientific family name of the plants
- IV. Index according to the English family name of the plants
- V. Index according to the occurrence of the plant species in Hungarian Robina (black locust) honey
- VI. Index according to the type of the plants (nectariferous or nectarless)
- VII. Index according to the frequency of bee visits
- VIII. Index according to the representation of plant species
- IX. Index according to the morphological features of the species
- X. Index according to the flowering time of the species in Hungary

HU-Biatorbágy, 2017

Rőzséné dr. Büki Etelka certified horticulturist, microscopic analyst consultant apiculture

BEEKEEPING POLLEN ATLAS 1.0 CD with search 2017

ShiNET & RŐZSÉNÉ DR. BÜKI ETELKA

System requirements:

- Windows operation system
- 600 MB free capacity on HDD
- Min. 1024 x 600 pixels.

<u>Useful operating information:</u>

- Language English/Hungarian: with the selection of the flags in the lower right corner of the startpage.

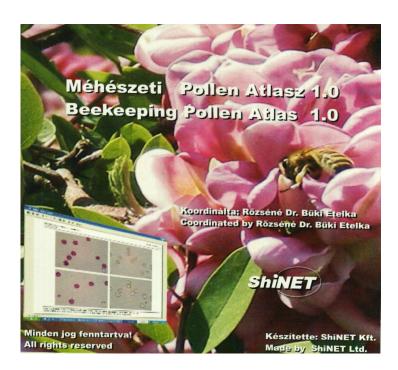
Technical support: shinet@shinet.hu

<u>Information</u>: 296 plant species, 1184 pictures, 10 listen, search

Menu: Introduction- Species: Export – Print – Narrow – Next: morphological description, and more

BEEKEEPING POLLEN ATLAS 1.0- CD

discount price: 350.-Euro + postcost if more CD discount price: 300.- Euro/CD+postcost



www.shinet.hu

e-mail: shinet@shinet.hu

ShiNET Kft. HU-1133. Budapest, Vág u. 2/f

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BEEKEEPING POLLEN ATLAS – CD 296 plant species, 1184 pictures, 10 lists, search

ShiNET Ltd. & Rőzséné dr. Büki Etelka

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Hungary