BEEHAVE_BEEMAPP (2015)

Beehave_BeeMapp (2015) is a new version of the honey bee model Beehave (2013). It comes with an increased number of beekeeping options and allows you to read in files produced by BeeMapp.

BeeMapp, an app for iPhones and iPads, can be used to map food sources and record colony assessments. BeeMapp can be downloaded from: https://itunes.apple.com/us/app/beemapp/id1010236321?ls=1&mt=8.

BEESCOUT, a landscape module for BEEHAVE, is currently under review and will be released in future. Similar to BeeMapp, it will allow you to create input files on food sources.

The Beehave Weather Tool helps to create "weather"data files (i.e. the maximal daily foraging period), which can be read in by Beehave.

The Manual provided here refers to the original Beehave (2013) version. Changes made to the new Beehave-BeeMapp (2015) version are listed in the document "Changes to Beehave_BeeMapp2015.pdf"

BEEHAVE can be downloaded from http://beehave-model.net/.

To run the model, you need to install NetLogo: https://ccl.northwestern.edu/netlogo/.

Files provided:

(Please note: all input files need to be unzipped and in the same folder as Beehave!)

"Assessments.txt": Example of a colony assessment file created by the BeeMapp app. It is read in by Beehave_BeeMapp2015 when *ReadBeeMappFile* = "on" and *BeeMapp_FILE* = "Assessments.txt" (interface section FILES-in). It provides data on the date of the colony assessment, the day of the year, presence (1) or absence (0) of the queen, eggs, larvae and capped brood, an estimation of the total number of workers, and the total amount of honey stored. If you keep the format, you can modify this file according to your own colony assessments even without using the BeeMapp app.

"Sources.txt": Example of an input file, defining the food flow for the BEEHVE bees, as described in the previous publication of Beehave (2013). These files can be created with BeeMapp, with the upcoming module BEESCOUT or manually (e.g. in Excel).

"WeatherExample.txt": Example of a "weather" file (max. hours of foraging per day), created by the Beehave Weather Tool (or manually, e.g. in Excel). This file is uploaded to Beehave_Beemapp2015 if *Weather* is set to "Weather File" and *WeatherFile* to "WeatherExample.txt" in Beehave_BeeMapp2015 (interface section FILES - in).

WeatherInput.txt: Example of an input file for the Beehave Weather tool, providing actual weather data (max. temperatures and hours of sunshine), from which the daily foraging period for BEEHAVE bees can be calculated.

Additional files:

Most files provided in the folder "Additional files" were already published with the previous Beehave (2013) version.

"BEEHAVE(2013)_Manual.pdf" is the manual for the Beehave (2013). There is no extra manual for Beehave_BeeMapp2015 available.

"Changes to Beehave_BeeMapp2015.pdf" and "Code Comparison Beehave2013 Beehave_BeeMapp2015" document the changes made to the new version of the Beehave software.

"Weather Tool Manual.pdf" is the manual for the BEEHAVE weather tool.

"BeeMapp_Info.pdf" provides a short description und user manual for the BeeMapp app.