CLAIMS

1. A method for providing an insect population growth forecast in a monitored area, said method comprising

obtaining sensor data sets from a plurality of monitoring devices placed in the monitored area for a sample time period, wherein each monitoring device comprises at least one sensor, wherein the sensor data sets comprises for each sensor detection a detection time point,

determining a number of individuals detected in the monitoring devices during the sample time period based on the sensor data sets,

obtaining respective location data sets for the plurality of monitoring devices, wherein each location data set at least provides a distance to another monitoring device among the plurality of monitoring devices, and

determining the insect population growth forecast by combining the number of individuals detected in the monitoring devices, the detection time points registered by the monitoring devices, and the location data sets of the monitoring devices.

2. The method according to claim 1, wherein the monitoring devices are arranged to communicate with one another via wireless data transmission, wherein the obtaining the respective location data sets comprises

for each of the monitoring devices,

obtaining information about at least one data communication path with at least one other monitoring device, and

for each of the at least one data communication paths,

identifying the other monitoring device linked to the data communication path such that the distance to the other monitoring device can be set to be less or equal to a maximum wireless data communication range.

3. The method according to any one of the preceding claims, wherein the location data sets comprise coordinates reflecting positions of the monitoring devices in the monitored area.

4. The method according to any one of the preceding claims, further comprising

determining a species and/or life cycle stages of the individuals detected in the monitoring devices based on the sensor data sets,

wherein the insect population growth forecast comprises a population growth forecast per species.

5. The method according to any one of the preceding claims, wherein the at least one monitoring device comprises a plurality of sensors placed at different positions inside a housing of the monitoring device, wherein at least two of the plurality of sensors are placed such that an individual can be detected by multiple sensors at the same time such that a size of the individual can be determined.

6. The method according to any one of the preceding claims, wherein a first and a second sub-set of the plurality of sensors are placed in or at a first and a second passageway, respectively, such that different routes chosen by the individual inside the housing can be determined.

7. The method according to claim 6, wherein the first and second passageway differ in size.

8. The method according to any one of the preceding claims, wherein the at least one sensor comprises at least one microphone arranged to register sound directly or indirectly pertaining to the individual within the housing.

9. The method according to any one of the preceding claims, said method further comprising

obtaining ventilation data, temperature data and/or humidity data pertaining to the monitored area,

wherein determining the insect population growth forecast is performed by combining the number of individuals detected in the monitoring devices, the detection time points registered by the monitoring devices, the location data sets of the monitoring devices and also the ventilation data, the temperature data and/or the humidity data pertaining to the monitored area.

10. A monitoring device for detecting insects, said device comprising

a housing,

a processor,

a memory,

a data communication device,

at least one sensor for detecting the insects inside the housing,

wherein the processor in combination with the memory is arranged to receive signals from the at least one sensor, to link the signals to detection time points and to process the signals and the detection time points into sensor data sets,

wherein the data communication device is arranged to transmit the sensor data sets to a gateway either directly or indirectly via another monitoring device.

11. The monitoring device according to claim 10, said monitoring device comprising a plurality of sensors placed at different positions inside the housing, wherein at least two of the plurality of sensors are placed such that an individual can be detected by multiple sensors at the same time such that a size of the individual can be determined.

12. The monitoring device according to claim 10 or 11, wherein a first and a second sub-set of the plurality of sensors are placed in or at a first and a second passageway, respectively, such that different routes chosen by the individual inside the housing can be determined.

13. The monitoring device according to claim 12, wherein the first and second passageway differ in size.

14. The monitoring device according to any one of the claims 10 to 13, wherein the at least one sensor comprises at least one microphone arranged to register sound directly or indirectly pertaining to the individual within the housing.

15. A system comprising a plurality of monitoring devices according to any one of the claims 10 to 14 and a gateway communicatively connected directly or indirectly to the monitoring devices and to a data processing apparatus, said gateway being configured to obtain the sensor data sets from the monitoring devices and to transmit the sensor data sets to the data processing apparatus, wherein the data processing apparatus being configured to determine an insect population growth forecast according to any one of the claims 1 to 9.