August 2024 - Press release

Citizen science app to combat invasive insects

New Citizen Science app supports agriculture in tracking the spread of invasive pest species in order to combat their spread using ecological methods.

Favoured by climate change, more and more invasive insect species are advancing into Europe. Many of them pose a threat to agricultural yields, such as the Japanese beetle (*Popillia japonica*), the oriental fruit fly (*Bactrocere dorsalis*) or the peach fruit fly (*Bactrocera zonata*).

Two EU-funded research projects are dedicated to these invasive species. Their aim is to develop ecological plant protection methods to counter the threat of invasive species without jeopardising biodiversity through the use of pesticides. The research consortium of the IPM Popillia project is developing a toolbox of measures to combat the Japanese beetle. In the REACT project, 15 partners from 12 countries on 3 continents are dedicated to developing innovative methods to combat invasive fruit flies. The consortium is using the Sterile Insect Technique (SIT), in which sterilised male flies are released to mate with the invasive flies in the wild, whereby the absence of offspring reduces the pest population.

Citizen scientists play an important role in both research projects. After all, if insect lovers, farmers, students, etc. report the discovery of invasive species in their regions, this creates an important data basis that provides information on the degree of spread of the species and can show where the use of methods to combat the pests appears to make sense.

The two projects have therefore jointly developed the IPM Invasive Pest Monitoring app, which anyone can use to help detect and report invasive pests.

By simply uploading mobile phone photos of the insects and entering important parameters such as host species (e.g. fruit and vegetables), weather and location, users can take part in mapping the distribution area of the species. Important: They do not have to know for sure which insects they are photographing. This is left to the judgement of the scientists involved in the projects.

Farmers who are worried about their crop yields, for example, can easily take an active part in researching pest insects in order to combat them using environmentally friendly methods. The IPM app is available for Android and iOS as well as in a browser version.

Further information

Project Website: https://react-insect.eu

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