

RAGWEED OBSERVATORY LETTER

MAPPING AMBROSIA WITH CITIZEN SCIENCE

Due to their health and economic impacts, *Ambrosia* species are often of interest to people. Therefore, some countries adopted some citizen science initiatives aimed at mapping the distribution of those species and facilitating their control.

IN THIS ISSUE

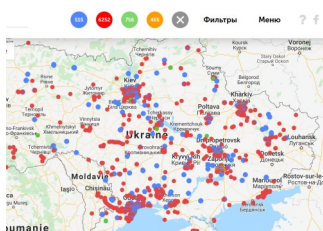
Mapping *Ambrosia* with citizen science

Ambrosia trifida L. added to the EPPO A2 list

A. artemisiifolia and *Ophraella communa*: are they doing good together in a climate change context?

A new ragweed observatory is born in Belgium

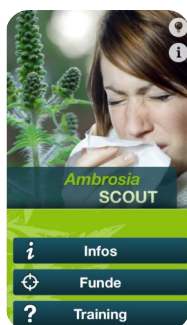
This is the case in **France** where citizens have a tool to signal *Ambrosia* either on a website : www.signalement-ambrosie.fr, an app on smartphones, even by mail or by telephone. Red marks represent *Ambrosia* population reported by citizens. They are changed into blue marks once a supervisor has checked it was an *Ambrosia* species and into green when it was destroyed. The system has been efficient on the whole territory since 2014. In 2019, around 11000 reports were made.



In **Ukraine**, there is an online tool-map: www.ambrozii.net. It is a mostly similar system with a minor difference in the use of the colours : red marks are changed into green when the population was destroyed by citizens and into orange when it was destroyed by the authorities. Also, a chat system is implemented, where users can write directly to their neighbours and

collaborate.

In **Austria**, there is a website www.ragweedfinder.at and an app: Ragweed Finder. In addition to their report of *Ambrosia*, the users can also indicate whether they suffer from a ragweed pollen allergy and how severe the strain is on the ground. Each discovery is assessed and forwarded to cooperation partners with the aim of reducing the spread of ragweed, better recognizing the hot spots and sustainably reducing the suffering of ragweed pollen allergy sufferers.



“Ambrosia SCOUT” www.ambrosiascout.de is used throughout **Germany**. Citizens have the opportunity to report locations of *Ambrosia* which are stored in a central database at the Free University of Berlin, (Ambrosia Atlas). This will help the authorities to record and eliminate the ragweed stocks, but people are also invited to destroy the plants on the spot.

In the **Netherlands** the app “Ambrosia Alert” is used. In the same way as the other applications mentioned above, it provides information for the recognition of *Ambrosia* and related or similar plants and gives the possibility to report ambrosia plants.

A recent study published in March 2018 highlights the value of citizen science in identifying and mapping the distribution of invasive alien plants⁽¹⁾. They aimed to identify and map the distribution of three invasive alien plants including *Ambrosia artemisiifolia* in the North East Italy. Workshops were organised where participants were trained to identify the three species and on how to upload observations. A total of 1826 observations were collected by citizen scientists and 1684 identifications (92 %) were positively validated by experts.

If you do know other app or website for mapping Ambrosia, let us know!



ERRATUM

In our last letter, we mentioned that the first-ever map of ragweed in Europe was published by C. Skjoth and his colleagues. However we thank one of our readers who pointed out that a map of ragweed in Europe had already been published 2013 by Prank, M. et al. For more information : www.sciencedirect.com/science/article/pii/S0168192313002104

AMBROSIA TRIFIDA L. ADDED TO THE EPPO A2 LIST



The **European and Mediterranean Plant Protection Organization (EPPO)** is an international organization responsible for cooperation and harmonization in plant protection within the European and Mediterranean region.

This organization establishes lists of pests (including invasive alien plants) that damage cultivated and wild plants. Those lists are updated every year and validated by the EPPO Council with the aim of encouraging harmonization of phytosanitary regulations all over Europe.

In September 2019, the EPPO Council approved the addition of *Ambrosia trifida* L. to the EPPO A2 list of pests already present in the region recommended for regulation as quarantine pests ⁽²⁾. Pest Risk Analysis for *Ambrosia trifida* L. is available in the EPPO Global Database ⁽³⁾.

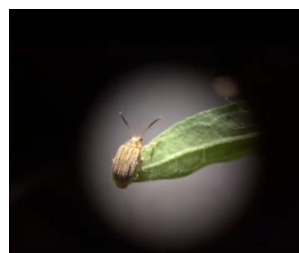
The European Commission published recently a list of 20 regulated quarantine pests qualifying as priority pests whose economic, environmental and social impact on EU's territory is the most severe ⁽⁴⁾. Member States will have to prepare action plans for the eradication of these pests. Unfortunately, *Ambrosia trifida* is not yet included in this list.

A. ARTEMISIIFOLIA AND OPHRAELLA COMMUNA: ARE THEY DOING GOOD TOGETHER IN A CLIMATE CHANGE CONTEXT?

A team of Italian researchers published in August this year a study ⁽⁵⁾ where they estimated the influence of climate change on the spread of the two species *Ambrosia artemisiifolia* L. and *Ophraella communa* in their invaded ranges in Europe. As a reminder, the primary (or natural) range of these two species is North America.

They predicted that ***Ambrosia* would expand its range more than the beetle** in the future. Indeed, the greater tolerance of the plant at low temperatures and at a variability of precipitation gives it a considerable advantage over the insect. This would result in lower efficacy for *O. communa* to potentially control *A. artemisiifolia* in agricultural and urbanized patches.

They conclude that the use of *O. communa* as a biological control agent, while beneficial, would not be a sufficient solution but should be coupled with other management methods.



Click on the picture to see a short video of the Ambrosia leaf beetle *Ophraella communa*

A NEW RAGWEED OBSERVATORY IS BORN IN BELGIUM

The University of Liège, in partnership with the Public Service of Wallonia, is responsible for **the creation in November of a Ragweed observatory in Wallonia** (Belgium). The objective is to develop the monitoring and the prevention of the spread of *Ambrosia artemisiifolia*.



Observatoire wallon des
Ambroisies

Its mission will be the production of communication tools (website, brochures, video media, popular articles, etc.), the development of an interface for reporting observations, the setting of an observer's network and the validation of data in the field.

Long life to this new observatory!

Ambrosia in Europe : Serbia

During the international conference **EMAPI 2019 Prague**, the French Ragweed Observatory interviewed some researchers about *Ambrosia* species in their country.

The second person interviewed is from Serbia : **Dragica Obratov-Petković** D.Sc. Full Professor Department of Landscape Architecture and Horticulture Faculty of Forestry University of Belgrade : <http://internationalragweedsociety.org/>



INFORMATION SOURCES

1. **Nimis et al. 2018:** Mapping invasive plants with citizen science. A case study from Trieste (NE Italy) - Official Journal of the Societa Botanica Italiana, Vol 153, 2019 - Issue 5
2. **EPPO Reporting Service no. 09 - 2019 :** <https://gd.eppo.int/reporting/article-6606>
3. **EPPO Global Database :** <https://gd.eppo.int/taxon/AMBTR/documents>
4. **Press release of the European Commission :** https://ec.europa.eu/commission/presscorner/detail/en/IP_19_5981
5. **Iannella M. et al. 2019 -** Investigating the Current and Future Co-Occurrence of *Ambrosia artemisiifolia* and *Ophraella communa* in Europe through Ecological Modelling and Remote Sensing Data Analysis - International Journal of Environmental Research and Public Health

AGENDA

27th January 2020 (14:00 – 18:00) Conference : "Public health and climate change: the case of ragweed allergy" - Lyon (FRANCE)

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The issues of ragweed Observatory letter can be consulted [here](#).