A pan-European citizen science project investigating the migration of the Red Admiral butterfly

The Red Admiral *Vanessa atalanta* is a migratory butterfly colonising Central and Northern Europe every spring from the South. Later in the year, the offspring of these spring arrivals migrate back towards the South. Scientists of the University of Bern in Switzerland have initiated a project aiming at better resolving the migration of this butterfly across Europe by the help of citizen science observations. Thousands of observers already contribute to the project, allowing for the study of Red Admiral migration with an unprecedented spatio-temporal resolution.

With its red banded and white spotted black wings the Red Admiral is unmistakable among European butterflies. Every year Red Admirals colonise Central and Northern Europe from the South. Later in the year, the offspring of these spring arrivals travel back. Autumn movements can be spectacular, sometimes involving tens of thousands of butterflies moving through a certain area. For decades its movements have been studied. However, some aspects of Red Admiral migration and the species' year-round dynamics are yet to be resolved.

Making use of the recent rapid expansion of online recording portals the Insect Migration and Ecology research group at the University of Bern (Switzerland) collates observations collected by citizen scientists from across Europe. Aiming at better resolving movement and occurrence patterns on a continental scale, the Swiss researchers have assembled an enthusiastic network of more than 40 institutions and citizen science data portals, operating in more than 20 countries, that support their research project. The project now unites the amazing effort of thousands of naturalists across Europe, compiling hundreds of thousands of records. This allows for Red Admiral migration to be studied at an unprecedented spatio-temporal resolution.

This wealth of data will allow the scientists not only to better understand occurrence patterns and phenology of the Red Admiral, but also to study the influence of a varying environment and a changing climate. It also allows them to explore major migration pathways and their potential impact on the ecosystems they cross. Using the Red Admiral as a model species, the researchers also hope to draw more general conclusions that may be applicable to the understanding of other migratory insects, such as economically important crop pests.

Everyone can join this project! The projects website explains how to get involved and offers links to the online data recording websites where sightings can be submitted:

https://insectmigration.wordpress.com/red-admiral-migration/

Please re-tweet and / or share our project!

Please re-tweet https://twitter.com/insectmigration/status/843744123186307073

Please like & share this post https://www.facebook.com/insectmigration/posts/1286346541446390:0

Additional information and media resources

The research group on Social Media

Twitter: https://twitter.com/insectmigration

Facebook: https://www.facebook.com/insectmigration/

Please follow, share and like us! Thanks!

How to report Red Admiral sightings

Click on the following link to find out where and how Admiral sightings in your country can be submitted:

• https://insectmigration.wordpress.com/red-admiral-migration/

Observations from anywhere can be submitted using the mobile apps <u>NaturaList</u> (for Android) or <u>iObs</u> (for iPhone).

When recording, please provide date, location and number of individuals (as exact as possible) and indicate if an observation refers to adult butterflies, caterpillars, chrysalides and/or eggs. Additional information concerning behaviour (mating behaviour, flight direction) is valuable as well.

Please avoid double-posting: report every sighting only once. Thanks!

Information on Red Admiral life history

• http://butterfly-conservation.org/679-823/red-admiral-.html

Red Admiral pictures

Wikipedia: 1800 x 1200 px, 240 dpi. Licence: CC-BY-SA 4.0, © Christian Fischer

• https://de.wikipedia.org/wiki/Admiral (Schmetterling)#/media/File:VanessaAtalanta Closeup.jpg

The Red Admiral image provided <u>here</u> can be used if credited properly (© Marco Thoma) in conjunction with this press release.

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