

# Stinging nettle sampling 2025

Analysing the host plant quality of the  
Common stinging nettle

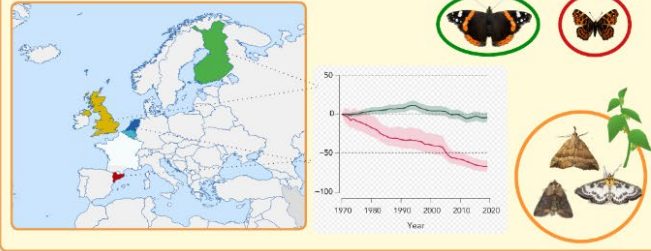
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Hans Van Dyck (UCLouvain)

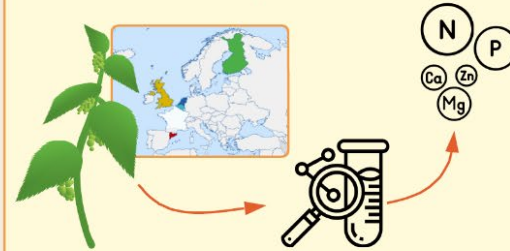


## European scale

WP1: Linking temporal trends in abundance and environmental variables



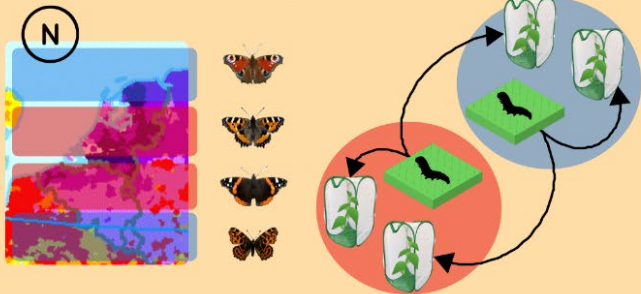
WP2: Quantifying nutritional content of hostplant leaves



## Low countries scale

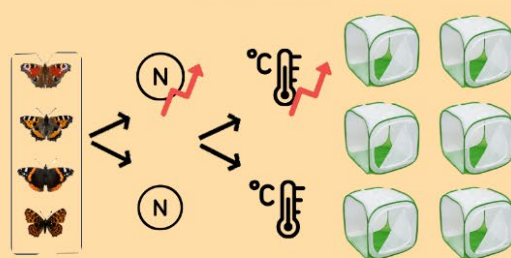
Larval performance

WP3: High/low Nitrogen reciprocal transplant experiment



Larval performance

WP4: Common-garden split-brood lab experiment with temperature and N treatments



Adult performance

WP5: Adult fitness proxies



Adult collection

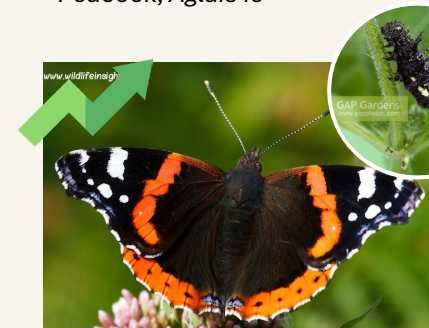
Adult collection



Peacock, *Aglais io*



Map butterfly, *Araschnia levana*



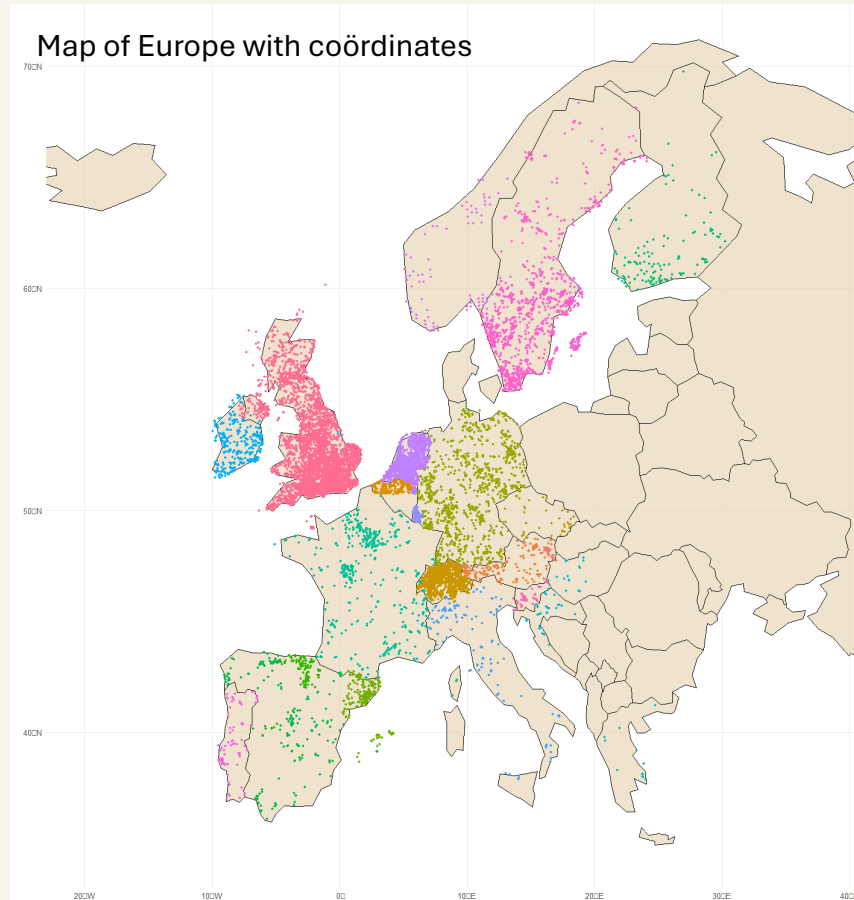
Red Admiral, *Vanessa atalanta*



Small tortoiseshell, *Aglais urticae*

The synergistic effects of N deposition and heat stress on herbivorous insects.

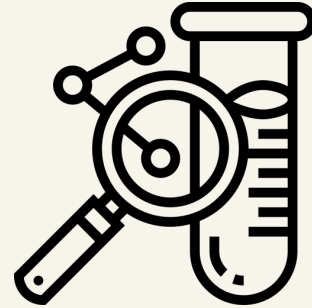
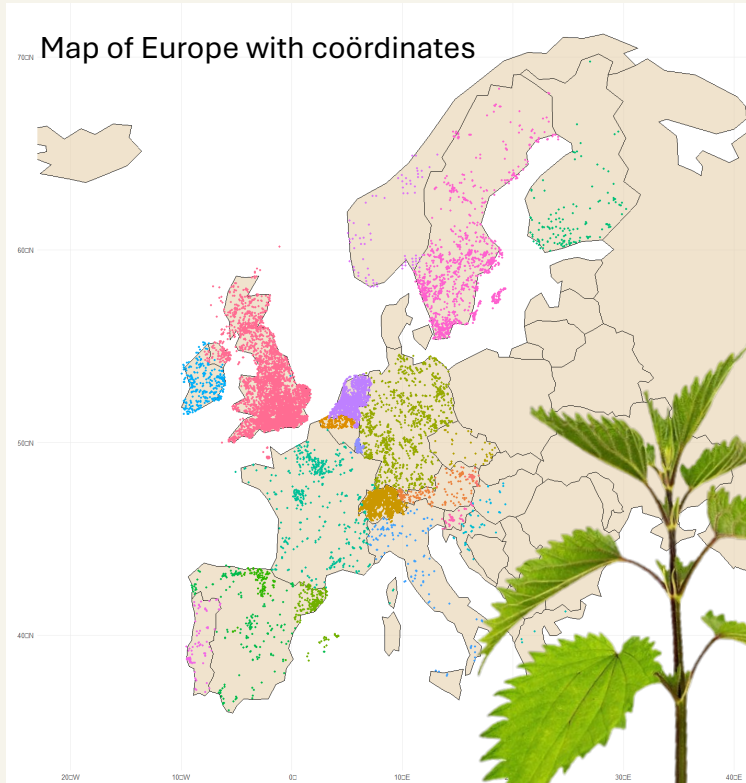
# WP1: linking temporal trends in abundance and environmental variables



**eBMS monitoring data of target species.**

**Link to climatic changes, N-deposition and land-use change.**

# WP2: Quantifying nutritional content of hostplant leaves



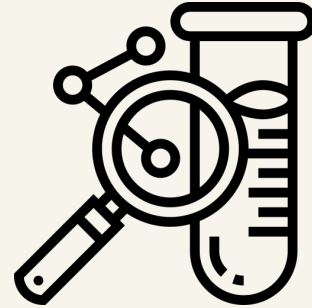
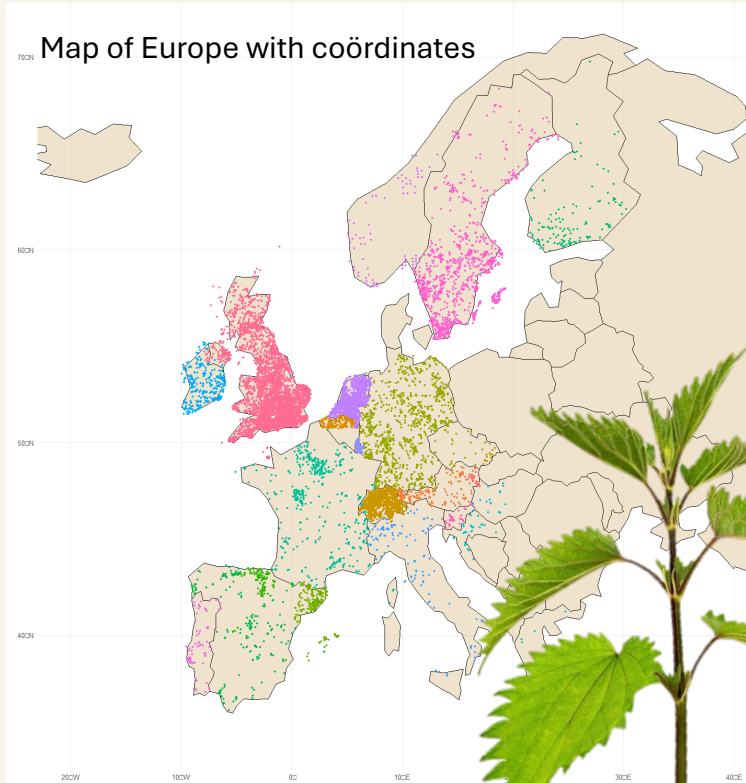
**Quantifying regional differences** in nutritional quality of *U. dioica*.

Sample *U. dioica* along monitoring transects and link to climatic changes, N-deposition and land-use change.





# WP2: Quantifying nutritional content of hostplant leaves



**Request:** Help set up the sampling by forwarding my message to the volunteers.

## What's in it for you?

- Citizen science
- Co-authorship
- Helping to understand butterfly change



# Protocol + materials

## Instruction Video Sampling Stinging Nettle

INSTITUUT  
NATUUR- EN  
BOSONDERZOEK



Radboud Universiteit

fwo

VUB VRIJE  
UNIVERSITEIT  
BRUSSEL

### Protocol sampling Common stinging nettle

**Aim:** collect leaf material of Common stinging nettle (*Urtica dioica*) and surrounding soil sample along butterfly monitoring transects across Europe (between April and August 2025).

**You receive:** 2 labels, 1 brown paper bag, 1 soil-tube, 1 plastic bag (+1 spare), 1 elastic band (+1 spare), 1 collecting envelope. **You bring:** a pen or pencil to write, your smartphone.

**Step 1 - Find a patch** of Common stinging nettle along one of your butterfly monitoring transect(s), ensuring that plants are healthy and representative of those in the area. Define a 3 by 3-meter square, where you will collect both leaf and soil samples.

Scan QR for instruction video:



**Step 2 - labelling:** provide the following information on both labels:

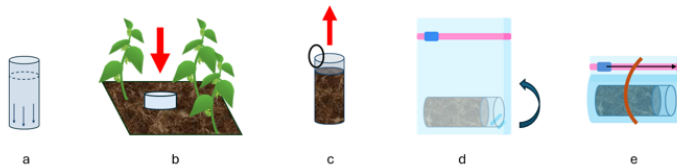
- Transect name
- Collection date + your name
- Shaded or open nettle patch

**Step 3 - leaf collection:**

1. Within the 3x3m square, collect a total of 5 young but fully-grown leaves, one from each of 5 different plants. These leaves are often the 3<sup>rd</sup> from the top or slightly lower. Avoid leaves with visible damage such as holes, browning or extensive insect feeding, minor imperfections are acceptable.
2. Place the leaves in the brown paper bag and leave it open to air-dry before shipping.

**Step 4 - soil collection** (see image below):

1. Take the soil-tube and push it into the soil with the arrows pointing downward until the black line is level with the soil surface.
2. Carefully pull out the tube from the soil, ensuring the soil remains inside. You may use the cable tie for grip.
3. Place the tube **sideways** into one of the plastic bags. Roll the bag around the tube, close the Ziplock seal, and secure it with one of the elastic bands.



**Step 5 - Packing:**

1. Attach one label to the paper bag containing the leaves.
2. Attach another label to the rolled-up plastic bag around the soil tube.
3. Place both the leaf and soil samples inside the collecting envelope.
4. Send the envelope back to the address stated on the front (shipment costs are covered).

Add yourself to the WhatsApp group for questions or info:



**Step 6 -** take three steps backwards and **take a smartphone picture** of the nettle patch where you have just sampled. The photo should be taken from the front (not from above) and should clearly show the nettle plants in the centre. Make sure to include some of their surroundings to provide context. Send me the picture via WhatsApp to +31 (0) 623075219 or email to [berber.meulepas@ru.nl](mailto:berber.meulepas@ru.nl).

Questions? Contact me via email: [berber.meulepas@ru.nl](mailto:berber.meulepas@ru.nl), or phone (+31 (0) 623075219)

Kind regards,  
Berber

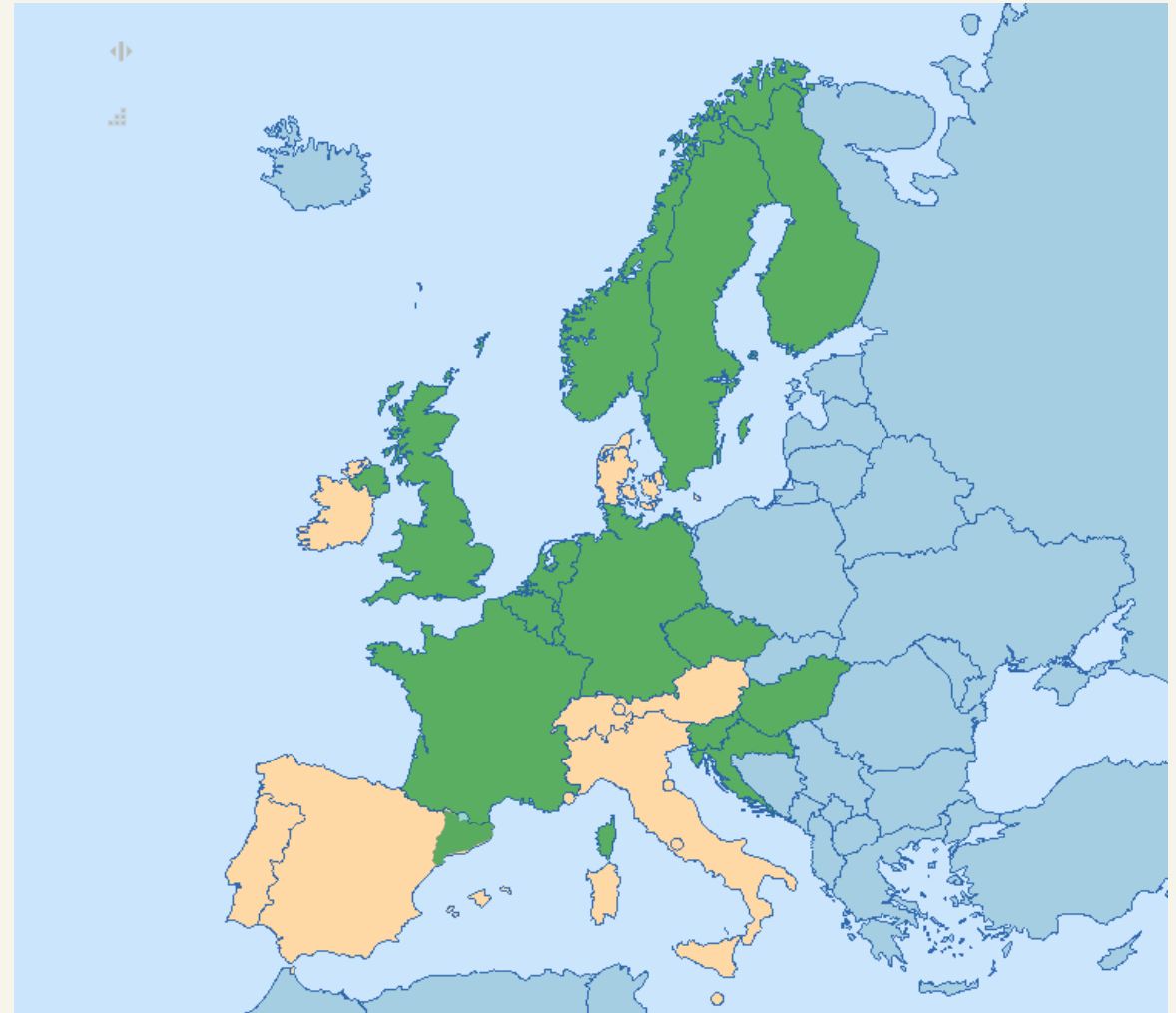


# Request for cooperation

- Coordinators of 14 countries have already signed-up (shown in green).

**Option (1):** Handing over the total # of sampling kits to the coordinator. Distribute the samples across the volunteers.

- Bring back samples today, or provide a shipping address.



**Sign-up Stinging-nettle sampling**

Thank you for your interest in helping with the sampling of stinging nettle at designated monitoring locations across Europe! Please fill in your details below to sign up. Once registered, you will receive additional information and the necessary sampling materials. If you have any questions, please contact the coordinator.

**Name**

**Address**

**Phone**

**Email**

**Country**

**Region**

**City**

**Postcode**

**Street**

**Number**

**Sign up**

[Sign-up Stinging-nettle sampling](#)

Thank you for your interest in helping with the sampling of stinging nettle along butterfly monitoring transects across Europe! Please fill in your details below to sign up. Once registered, you will receive additional information and the necessary sampling materials. If you have any questions, please contact the coordinator.

[forms.gle](https://forms.gle)

**Thank you!**

Contact: [berber.meulepas@ru.nl](mailto:berber.meulepas@ru.nl)