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Swedish BMS 2010 – 2025

LARS B. PETTERSSON, SWEDISH BUTTERFLY MONITORING SCHEME, LUND UNIVERSITY





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Swedish Butterfly Monitoring Scheme

- Part of the Swedish EPA monitoring programme
- Sites from Beddingestrand to Riksovararazat
- Standardised methods
- Free site selection, with guidance
- During 2024
 - » 371 volunteers
 - » 687 sites

🔗 Instagram: [@dagfjarilar](https://www.instagram.com/dagfjarilar)

🔗 Homepage: dagfjarilar.lu.se

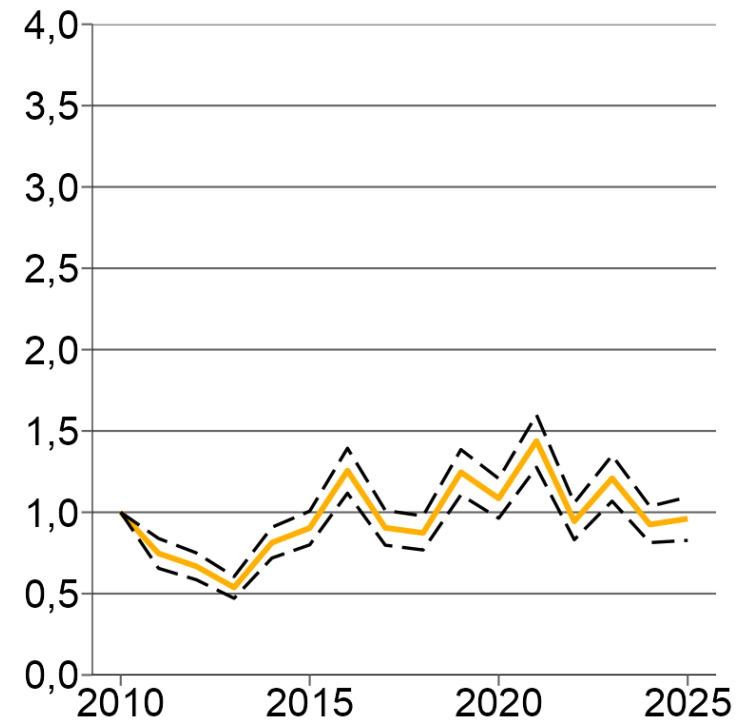


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Main aim: monitor butterfly population trends



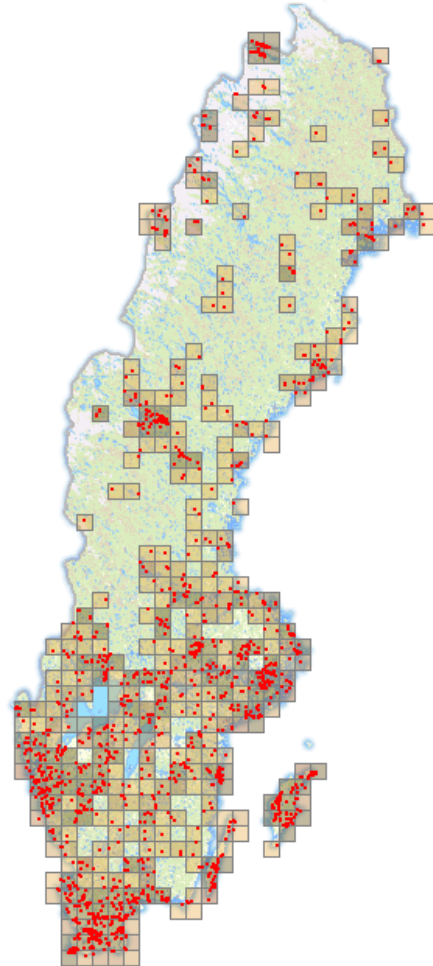
Brimstone (1228 sites)



Secondary aim: encourage exploring local nature



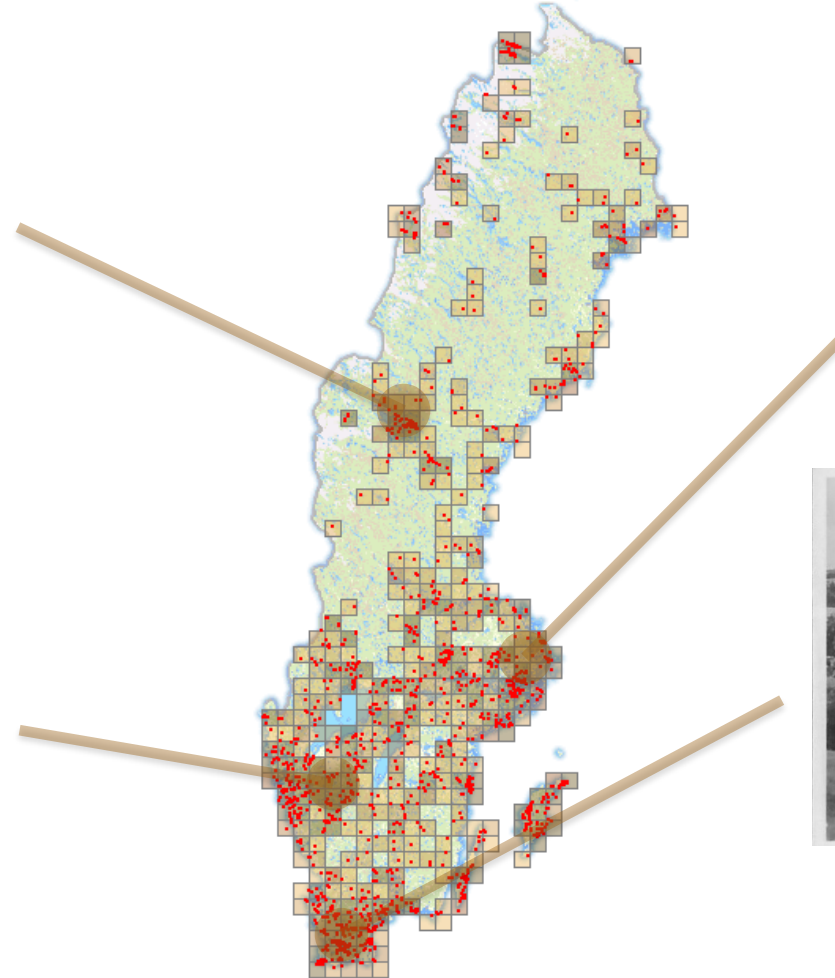
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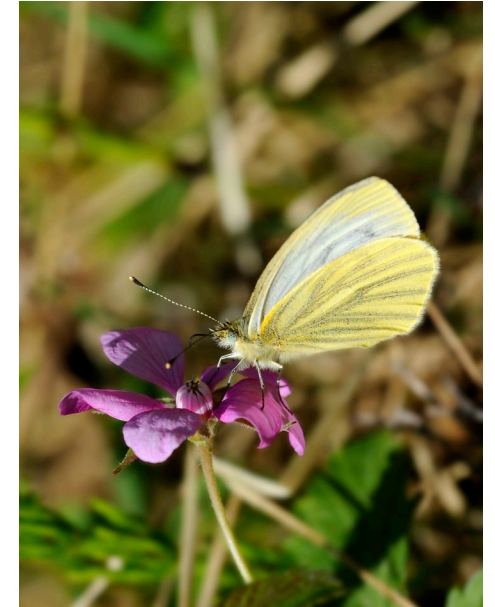
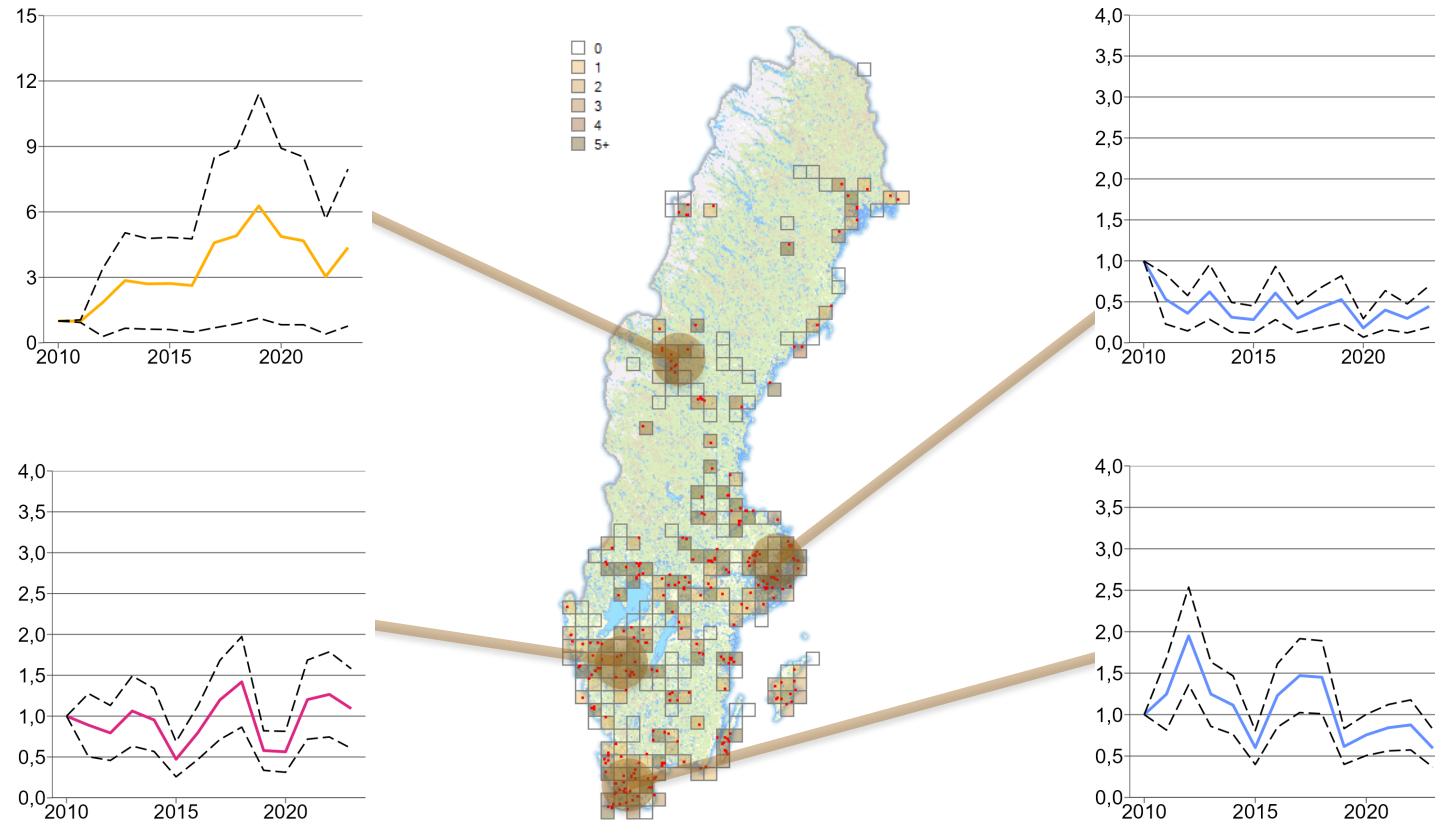
- 1 035 279 butterflies
- 1800 sites
- 119 species



Spatial coverage enabling regional comparisons



Regional comparisons: *Pieris napi*

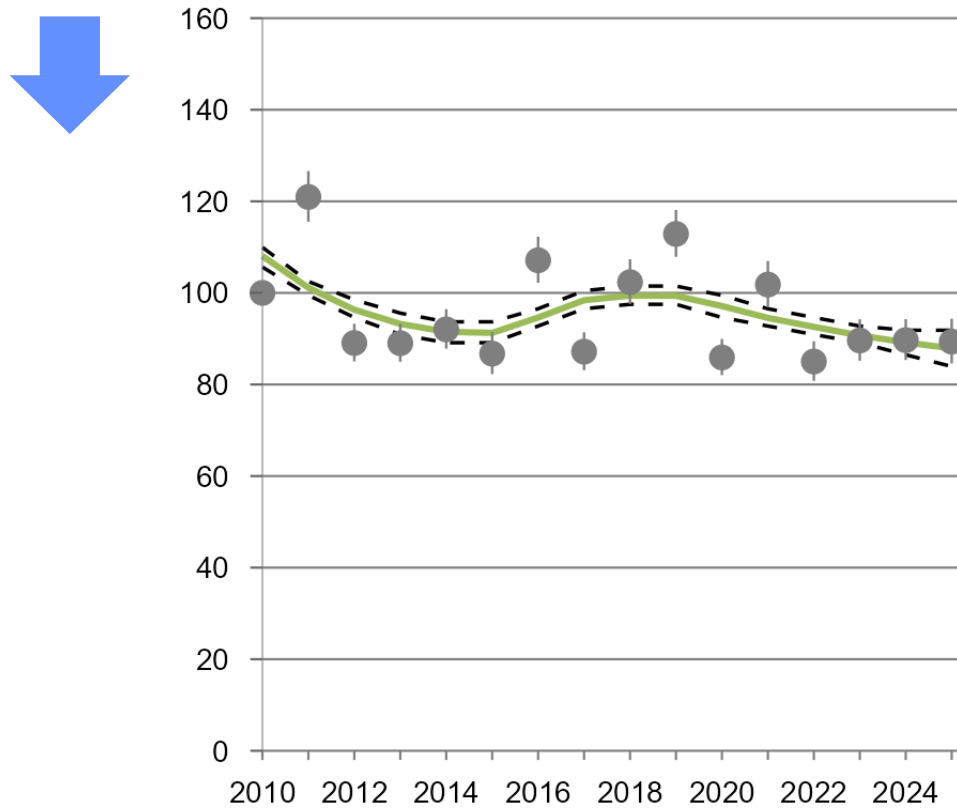


GBI species in Sweden

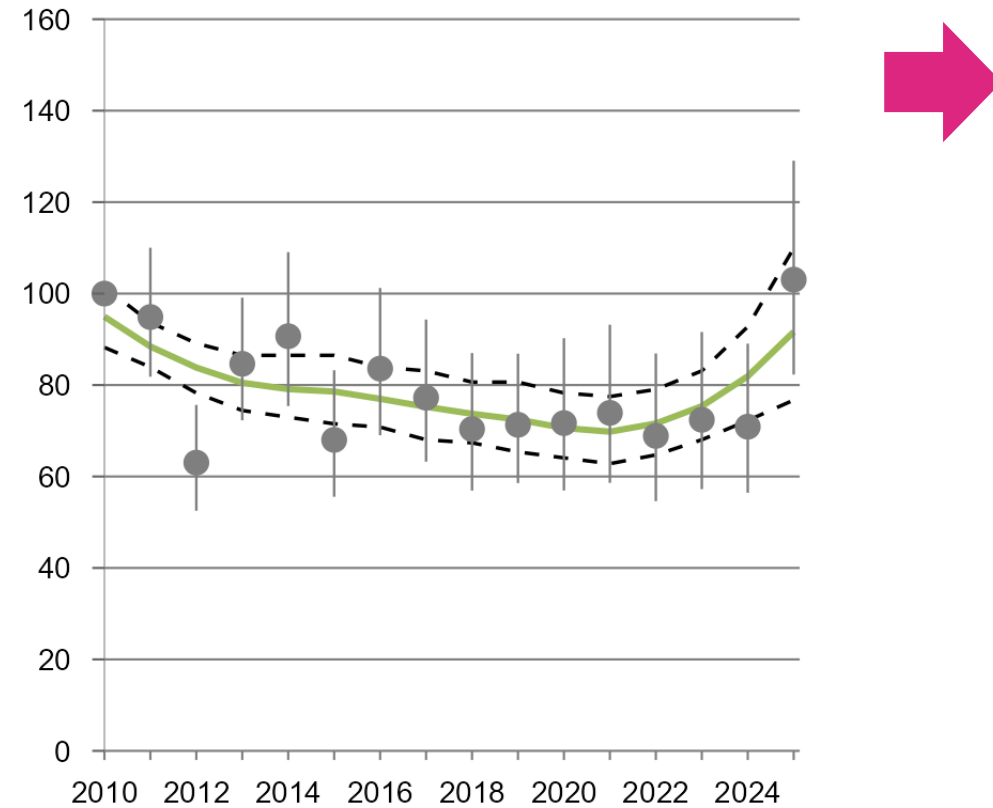


Tailored indicators, Sweden 2010 – 2025

20 most common butterflies

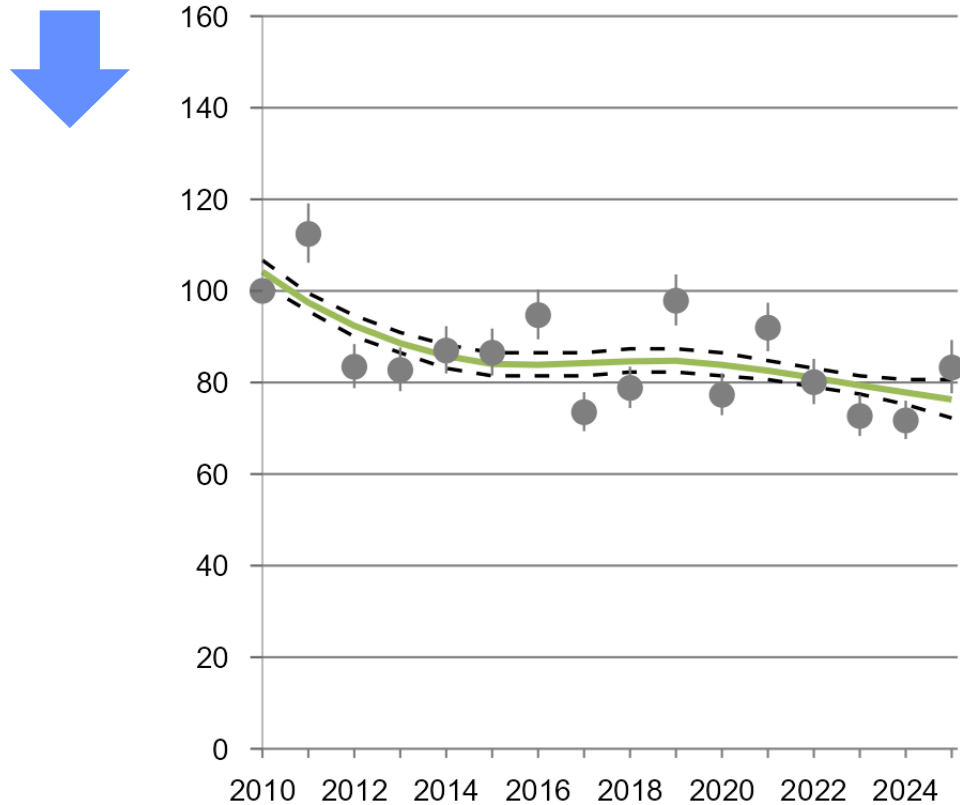


Grassland butterflies

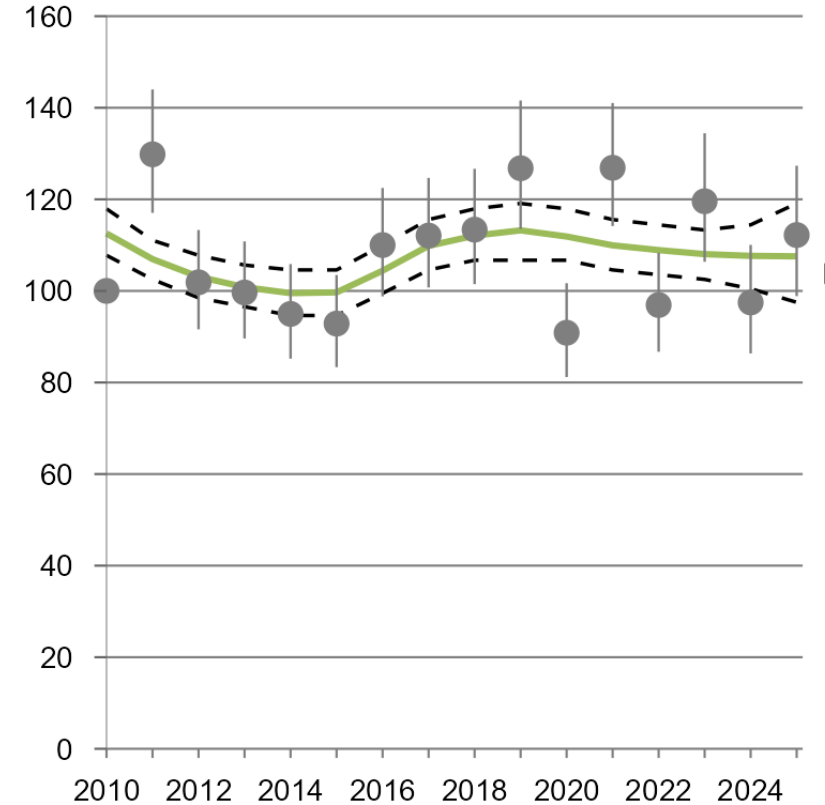


Tailored indicators, Sweden 2010 – 2025

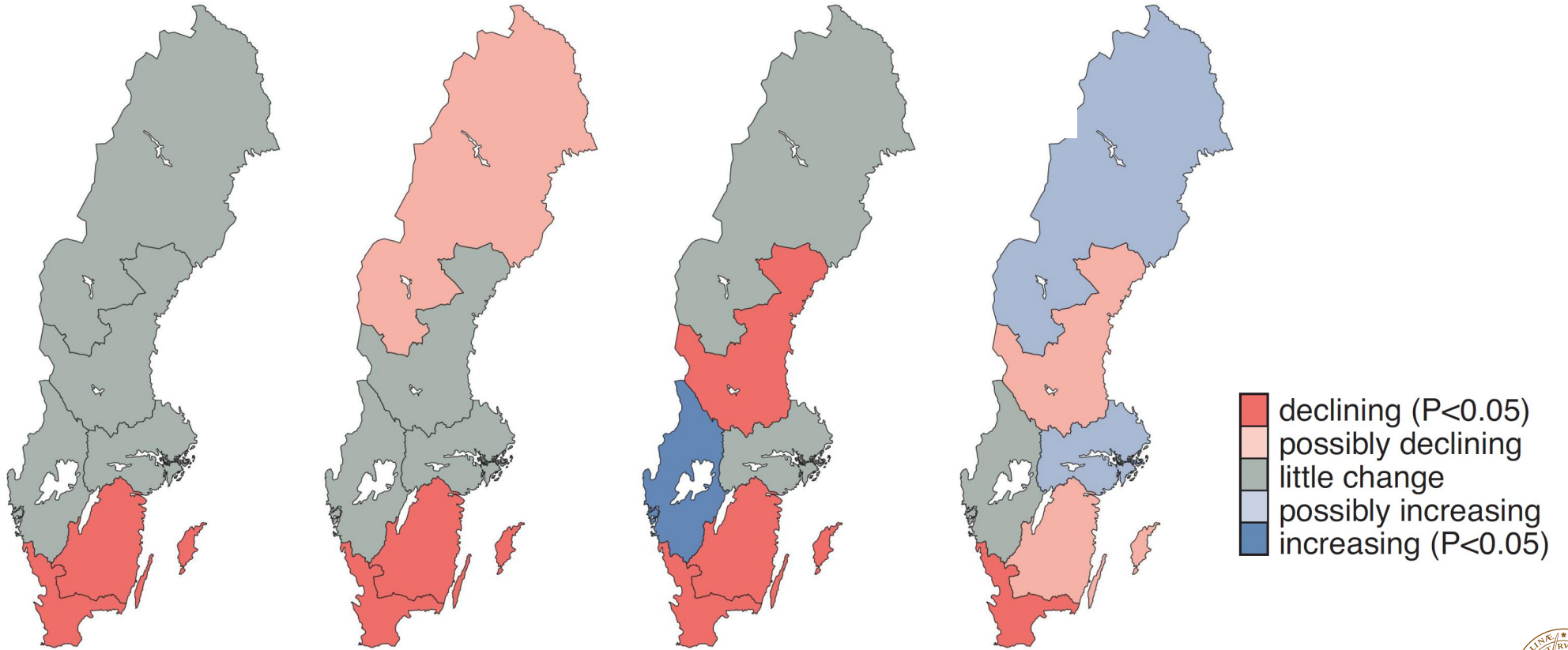
Farmland butterflies



Forest butterflies



Possible to split into regions too



20 most common butterflies

Grassland butterflies

Farmland butterflies

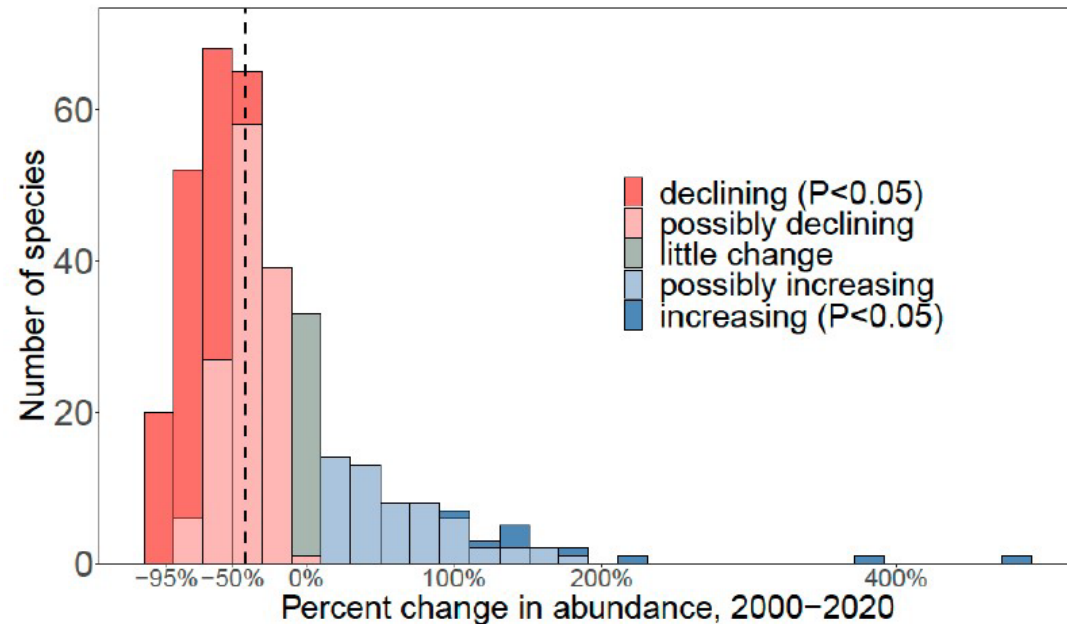
Forest butterflies



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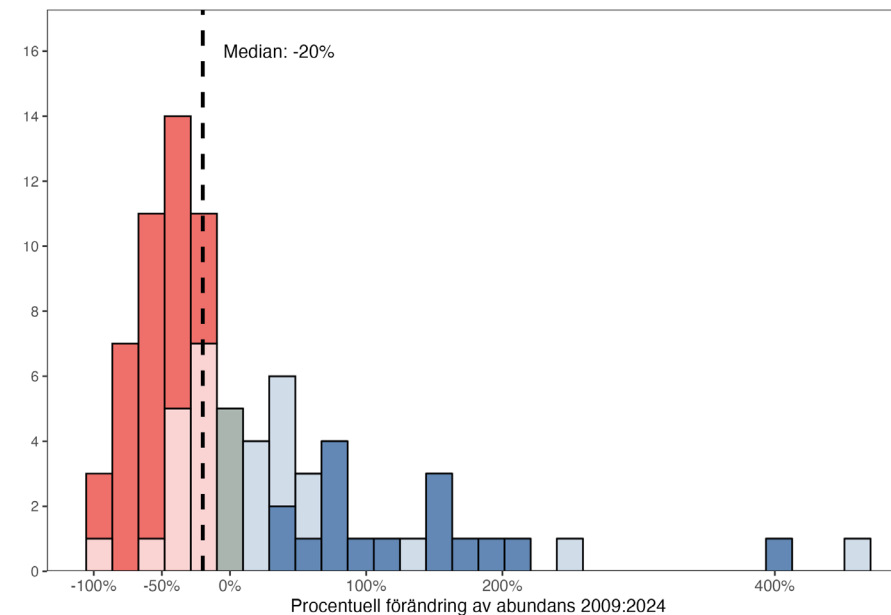
Combined (*cf. Edwards et al. Science 2025*)

Median -40%



USA 2000–2020

Median -20%



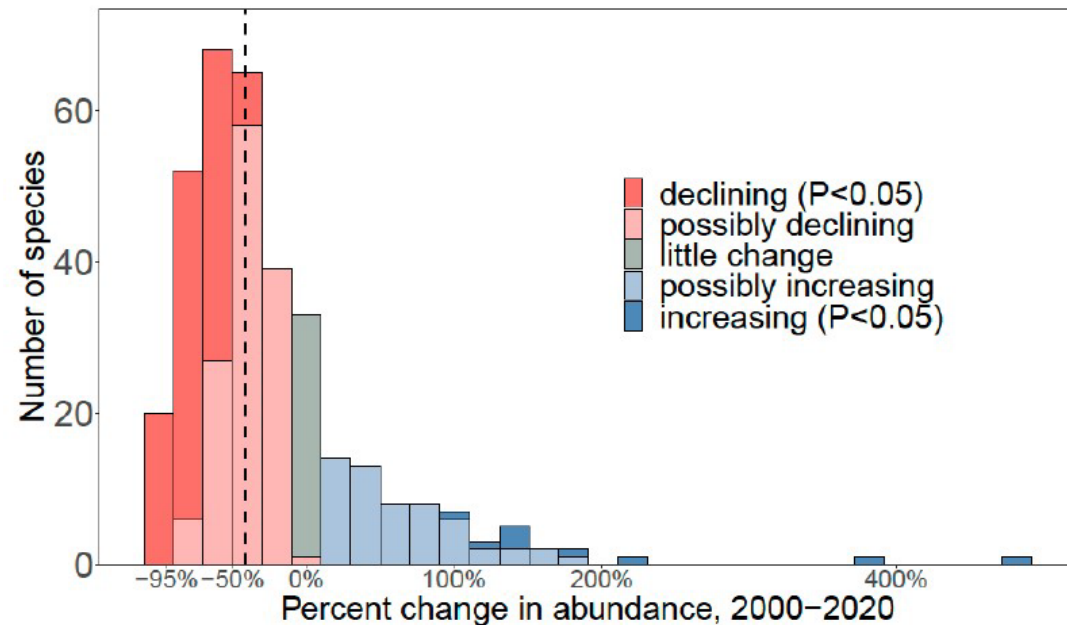
Sweden 2010–2024

<https://doi.org/10.1126/science.adp4671>



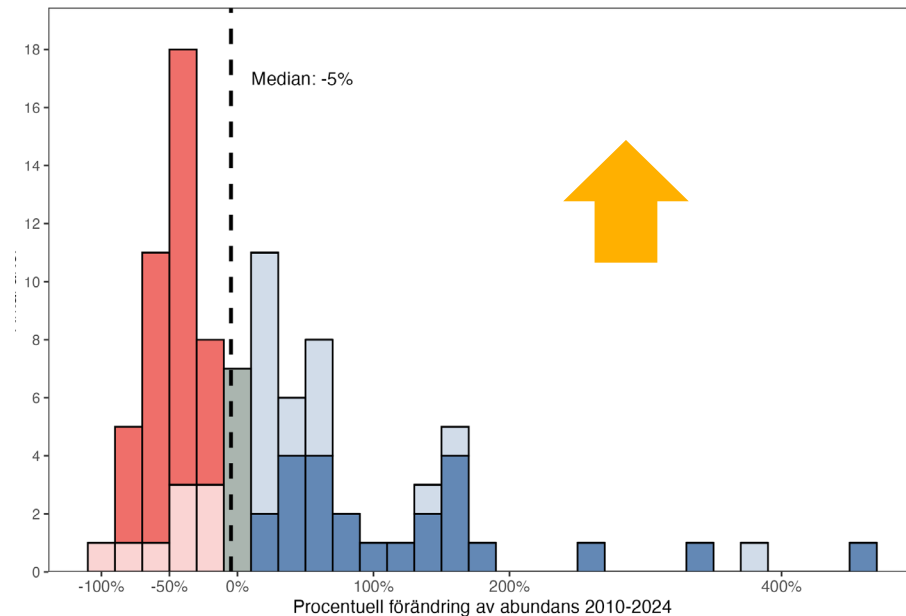
Combined (*cf. Edwards et al. Science 2025*)

Median -40%



USA 2000–2020

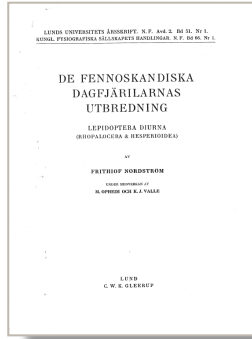
Median -5%



Sweden 2010–2025

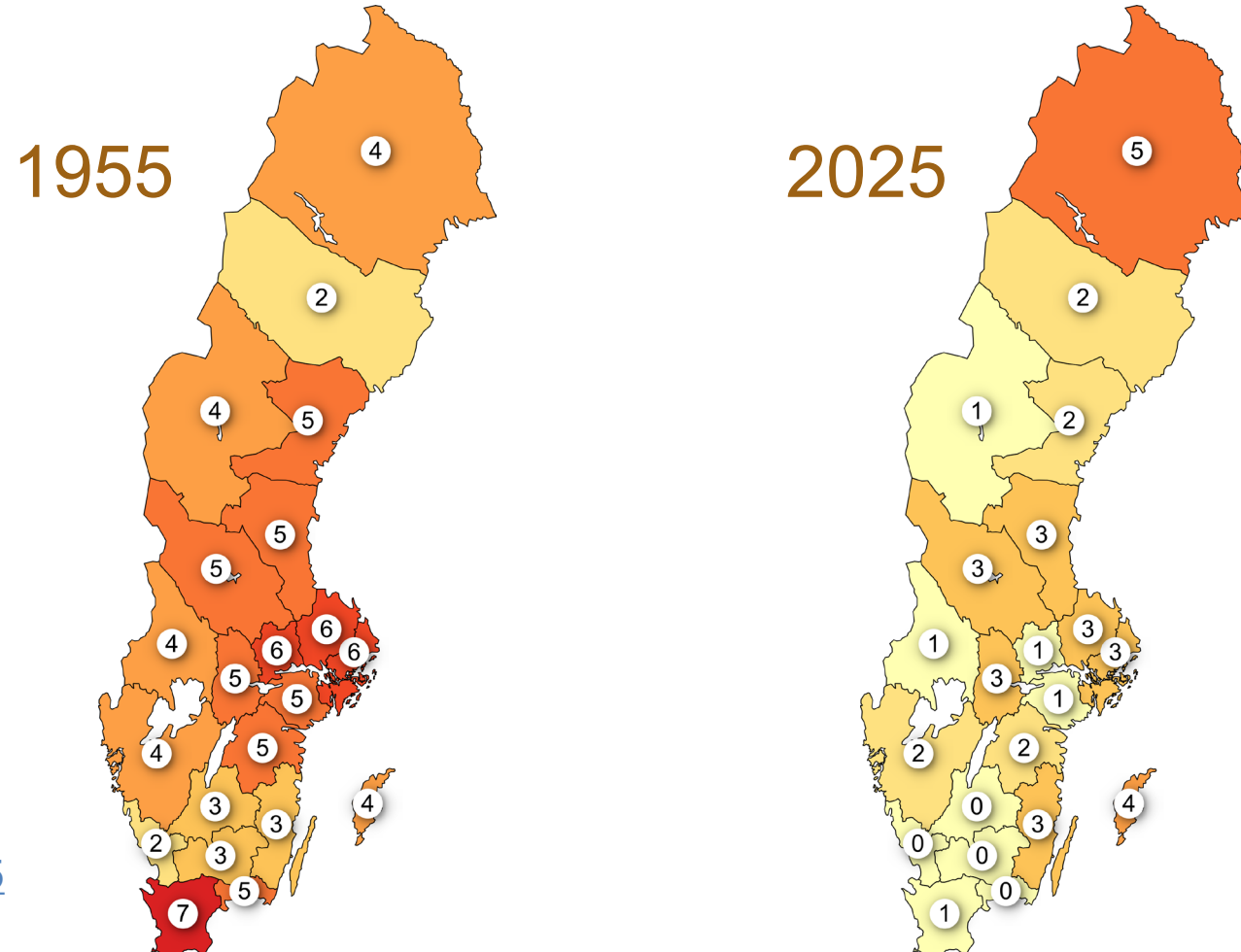
<https://doi.org/10.1126/science.adp4671>

Ranges of habitat directive butterflies decrease



 [Nordström 1955](#)

 [Pettersson & Arnberg 2025](#)



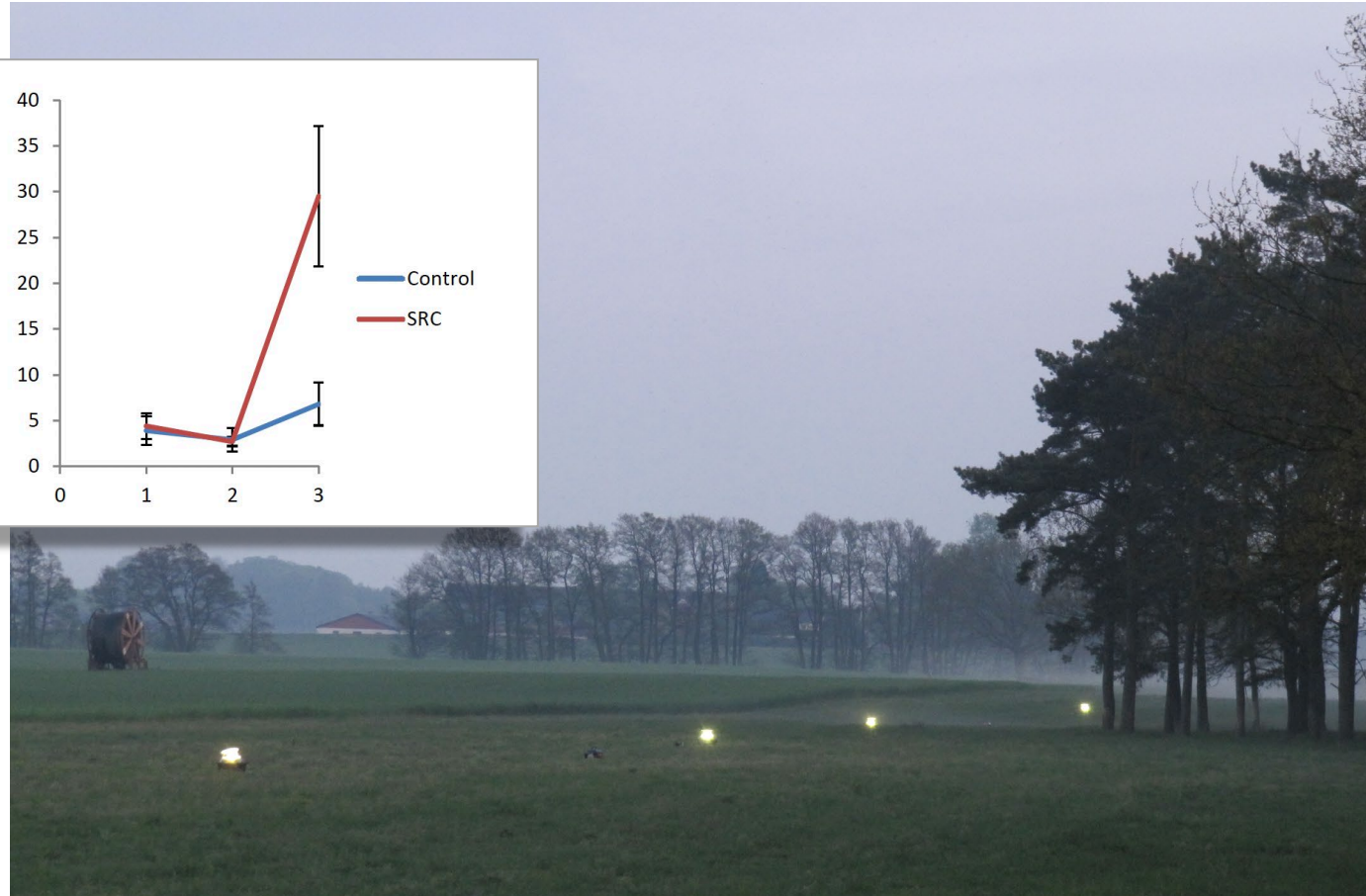
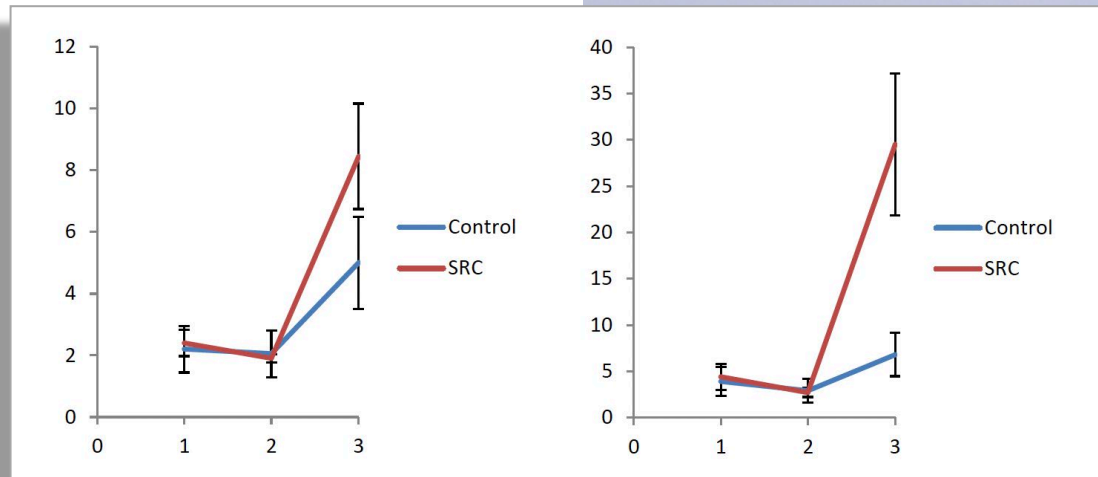
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Preparing for moths: Bait traps



Ulrika Samnegård et al., ms

Preparing for moths: Light traps



François Baguette et al., ms

Preparing for moths: AMI traps



Preparing for moths: AMI traps



Thank you!



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