

Weed seed predation

A promising ecosystem service
for sustainable weed control



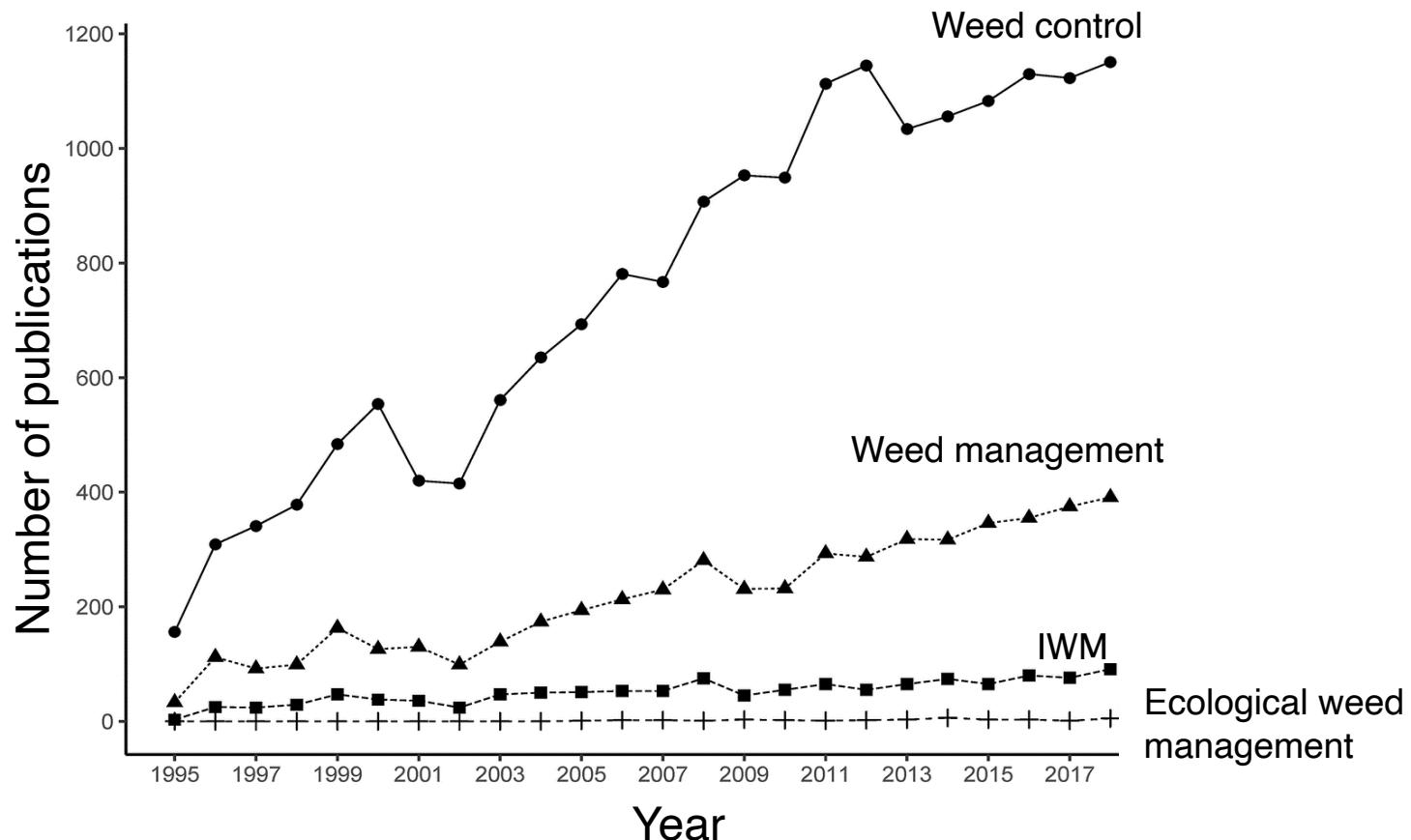
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 @EiriniDaouti



Crop protection futures in agriculture

24 May 2024

Weed management relies on chemical applications & soil cultivation



MacLaren et al. (2020). Agr. Sust. Devel



Derke (2006) J. Agr. Science

Petit et al. (2010) Agr. Sust. Devel.

Balfour & Ratnieks (2022) J. Ap. Ecol

Weed seed predators are important for weed control

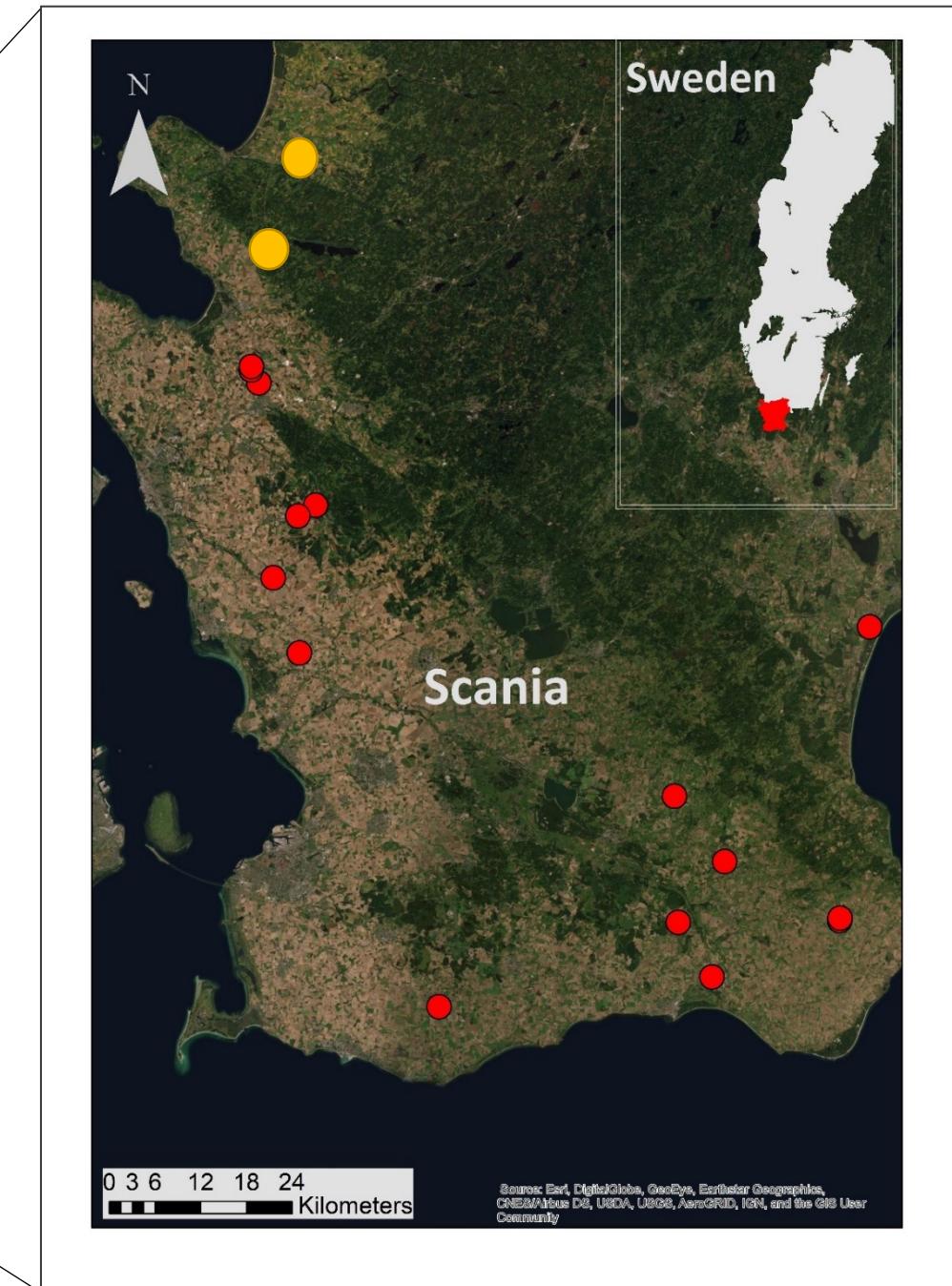
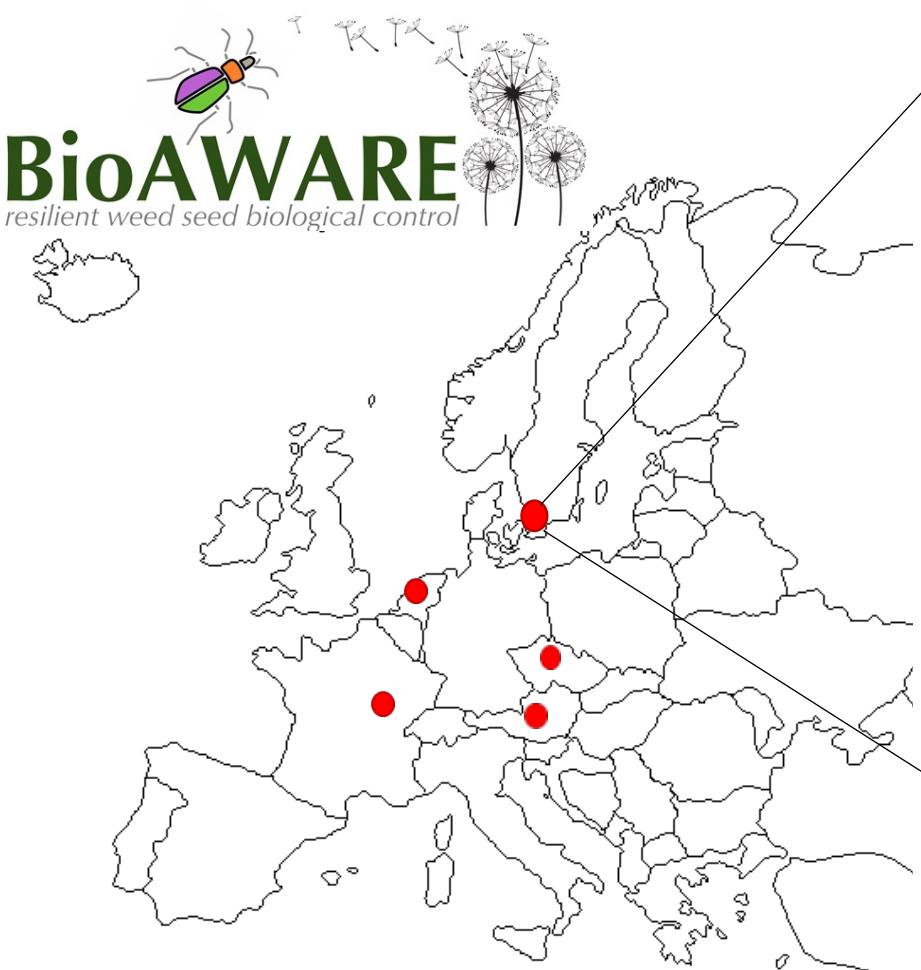


Westerman et al. (2005). Weed Sc.
Bohan et al. (2011) J. Ap.Ecol
Daouti et al. (2022) J. Ap. Ecol

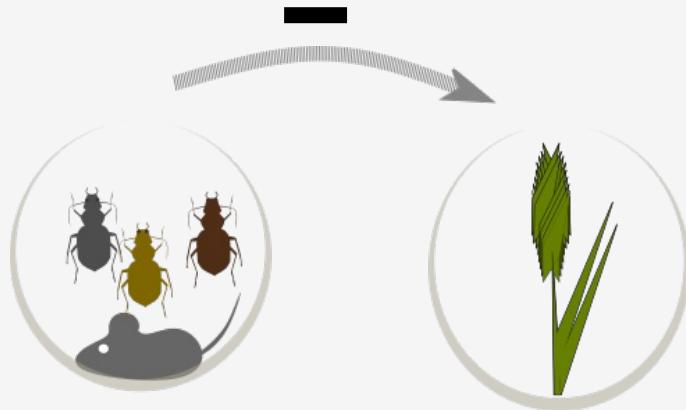


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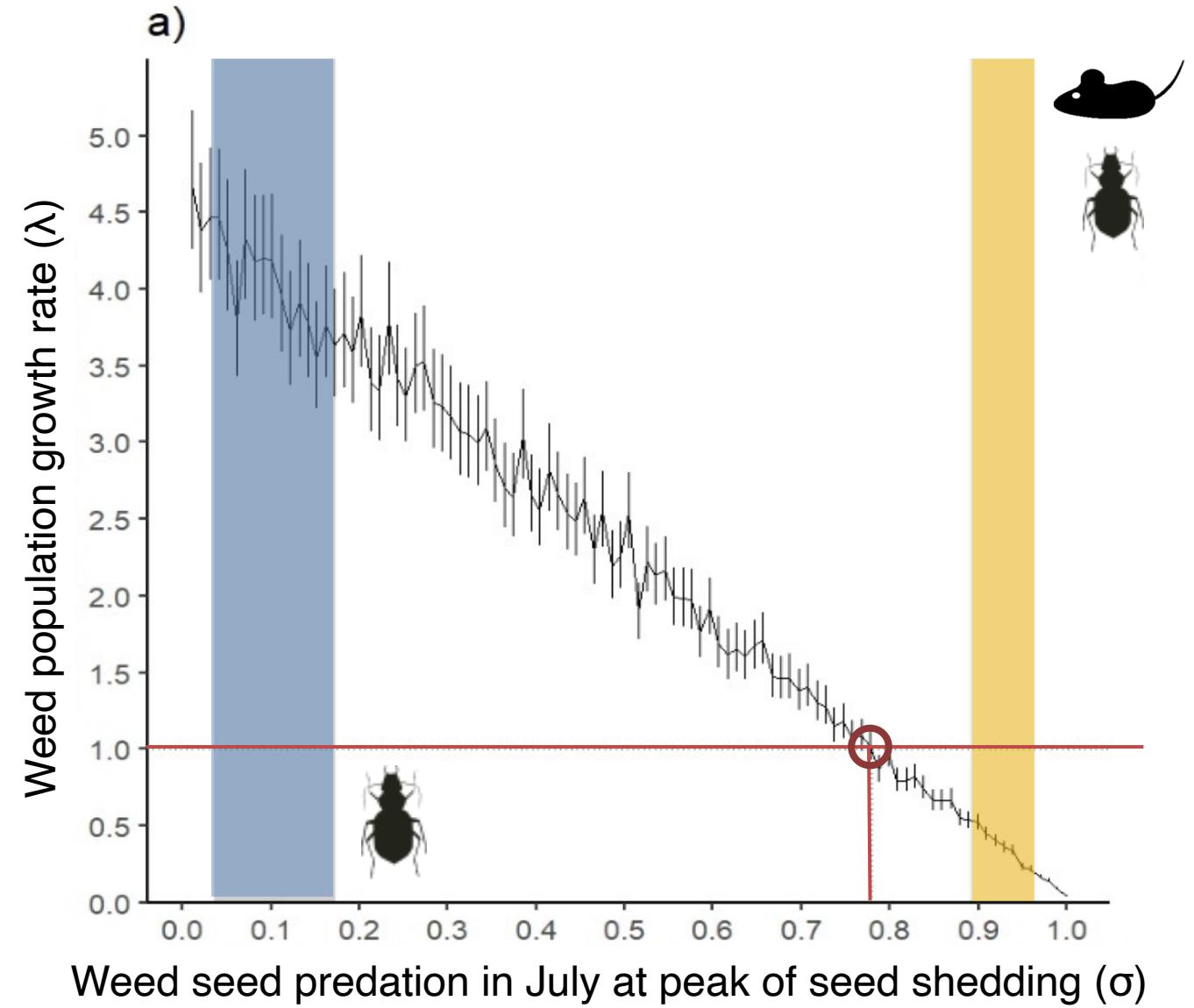
European & Swedish data



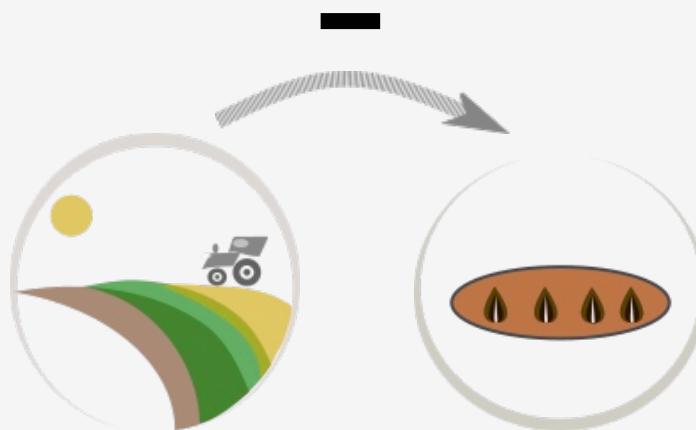
Weed regulation



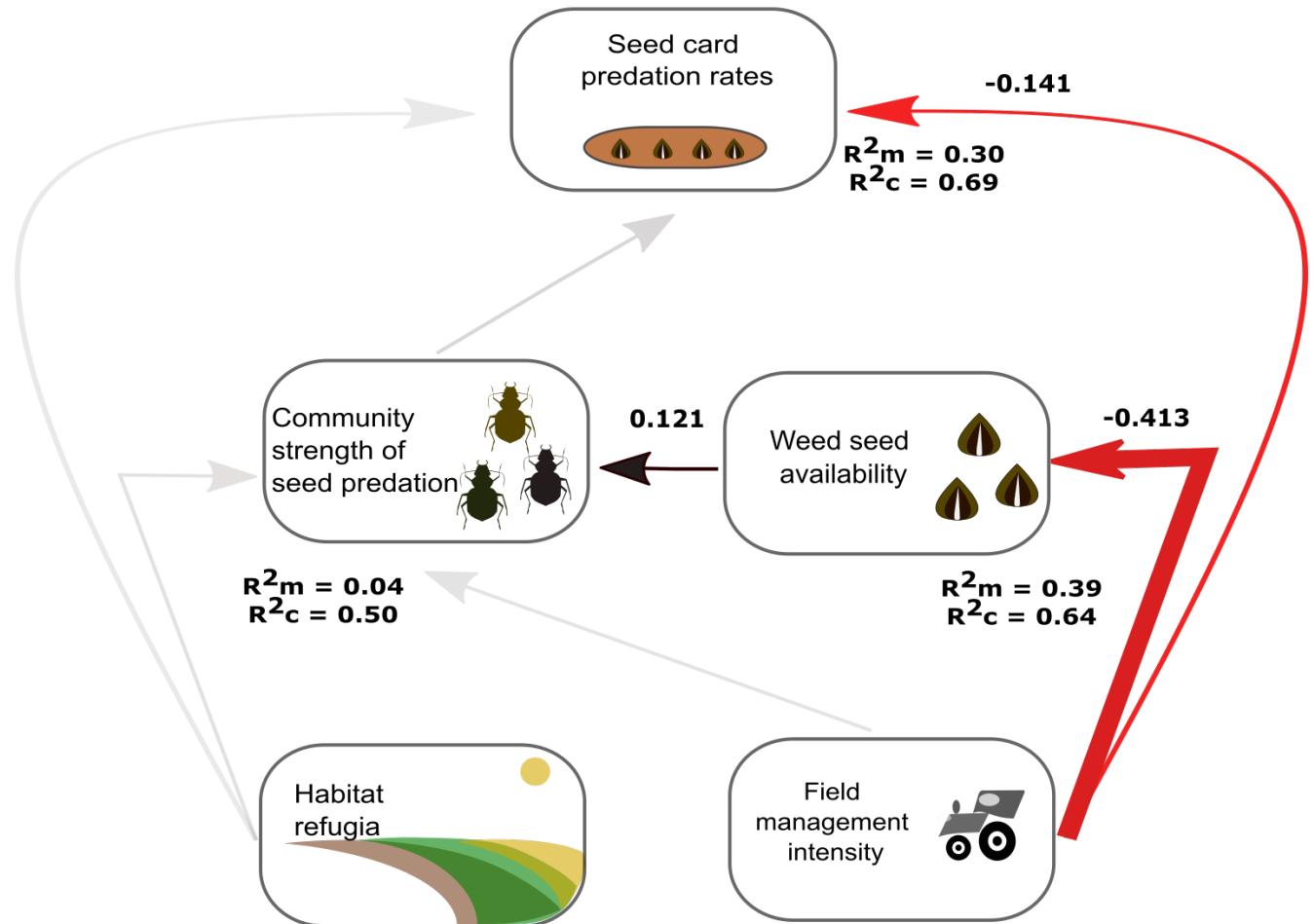
Seed predation can reduce the population growth of *A. myosuroides*



Agricultural intensity reduces weed seed predation

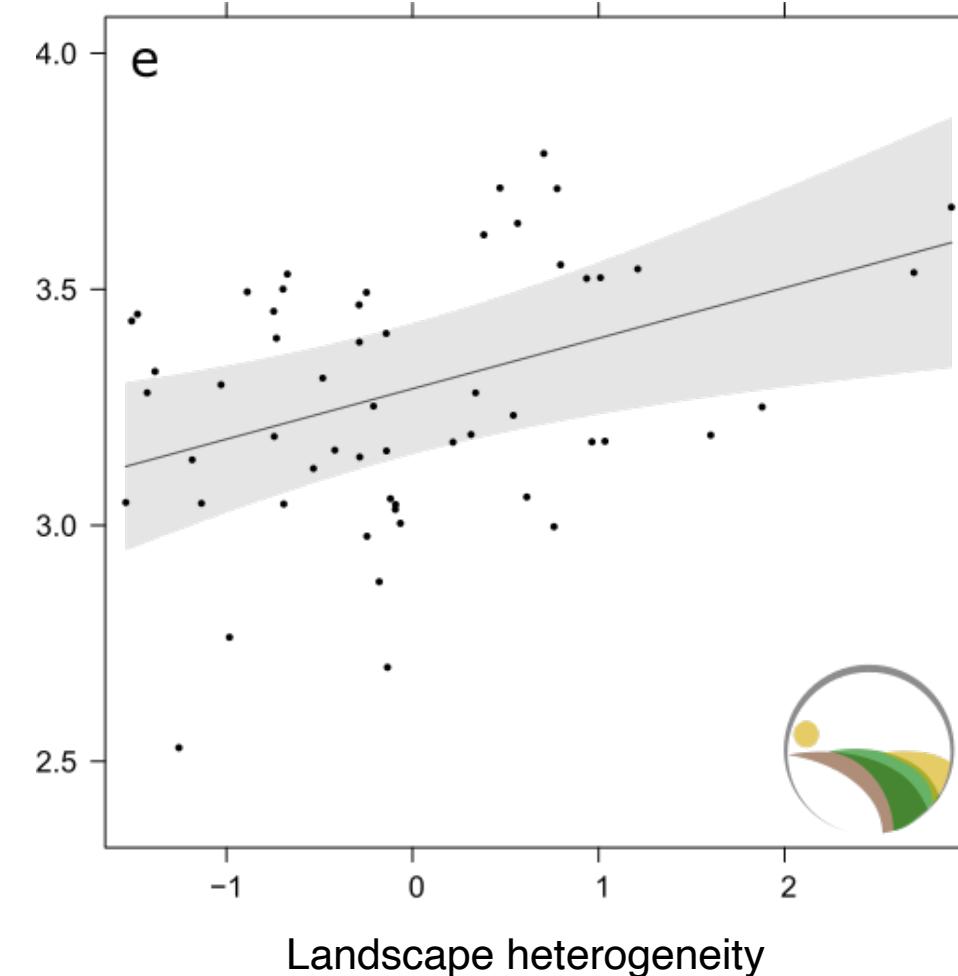
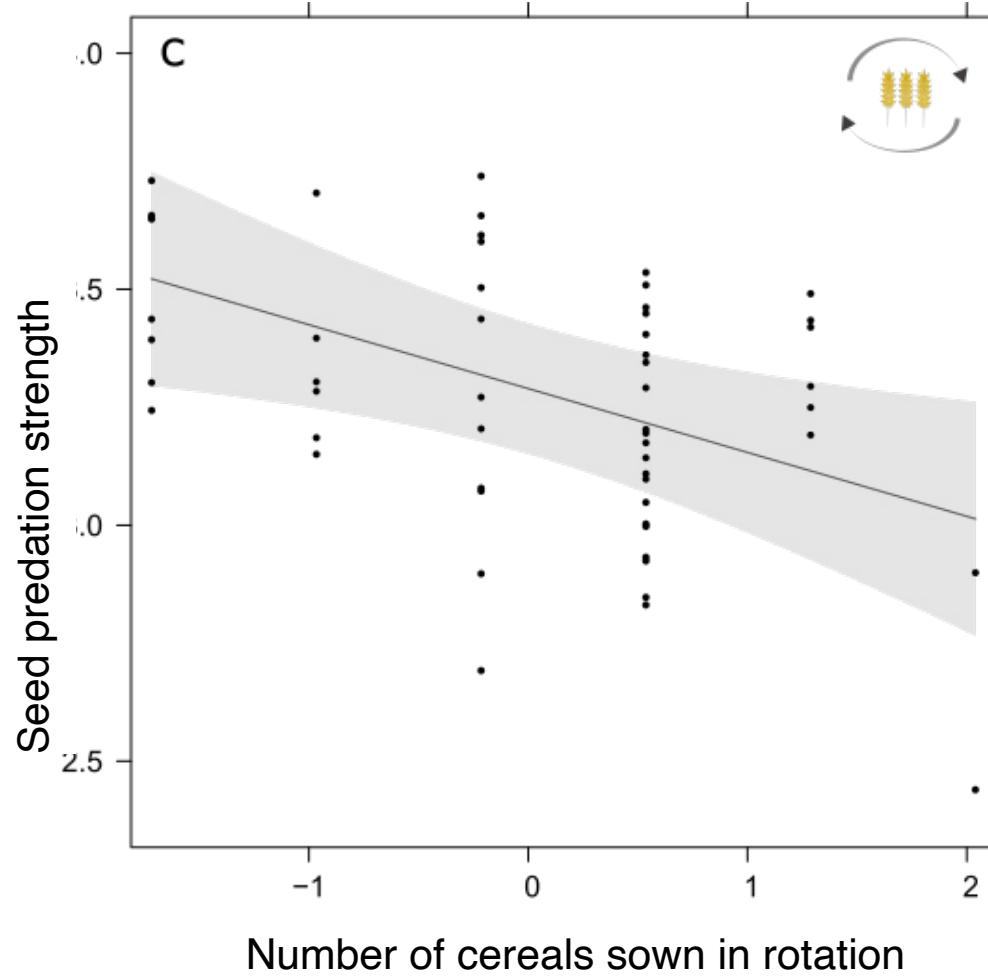


Swedish data



Crop rotation diversity and landscape heterogeneity increase seed predation

European data

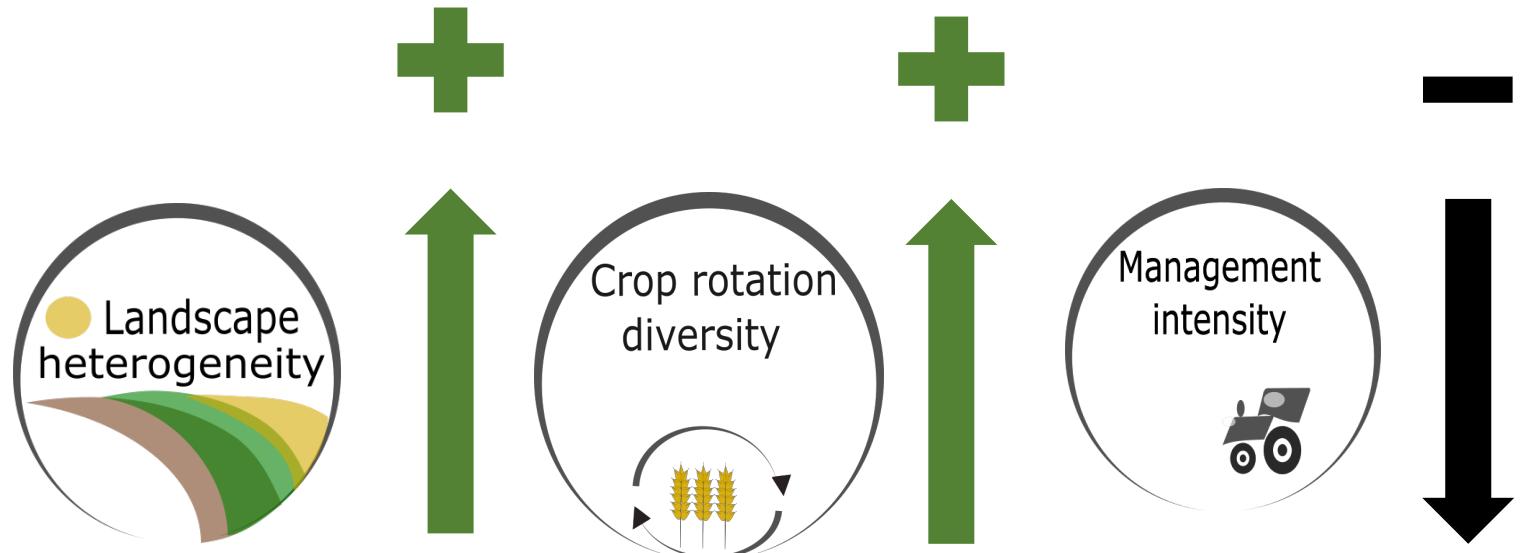


Crop protection futures in agriculture

Weed seed predation is a promising ecosystem service for sustainable weed control



We can support
weed seed
predation by



Thank you for your attention ☺

Special thanks to collaborators, co-authors, farmers, students and funding organisations



FWF

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AGENCE FRANÇAISE
POUR LA BIODIVERSITÉ^{MINISTÈRE DE L'ENVIRONNEMENT}



C-IPM Coordinated Integrated Pest Management in Europe



SCIENCE AND EDUCATION FOR SUSTAINABILITY