

The role of natural enemies in pest and weed control in agroecosystems



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Ingen ledning

Ogräs - 34 %
Skadedjur - 18.7 %
Skördeförlust



Naturliga fiender

Predation

Parasitism

Patogenicitet

Stenberg et al. (2021)
J. Pest. Sc



Naturliga fiender

Predation

Parasitism

Patogenicitet

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J. Pest. Sc



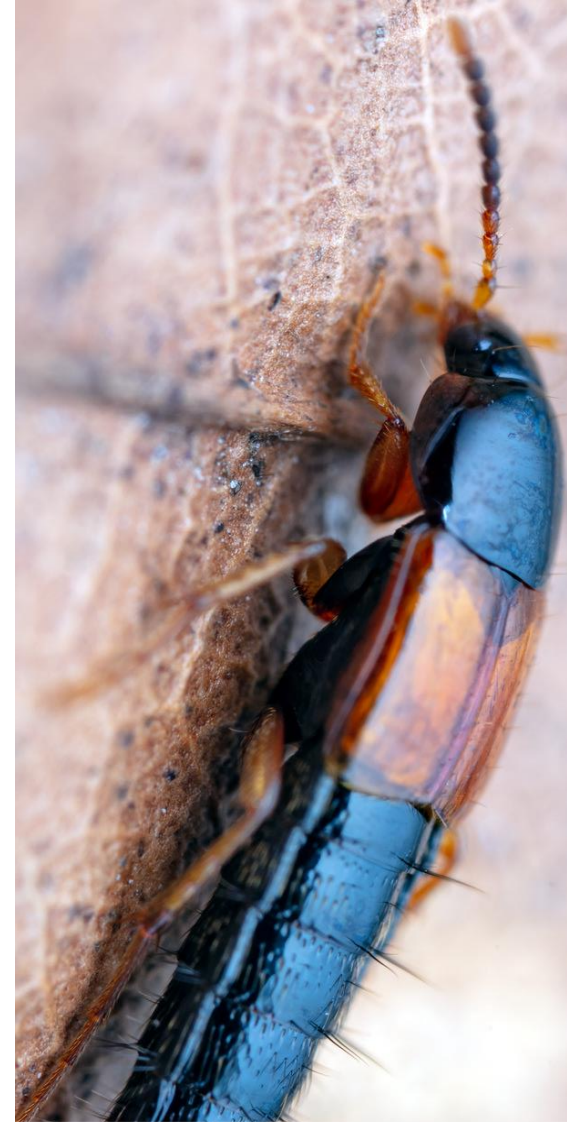
Naturliga fiender

Predation

Generalistiska predatorer



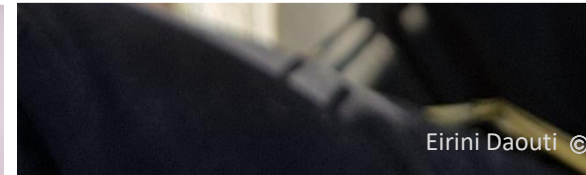
Spindlar



Kortvingar



Jordlöpare



Naturliga fiender

Predation

Specialiserade predatorer



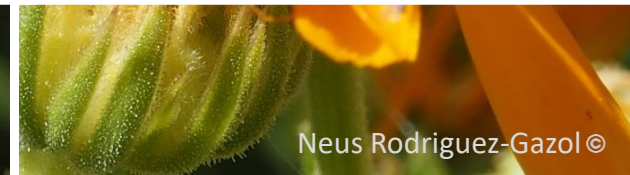
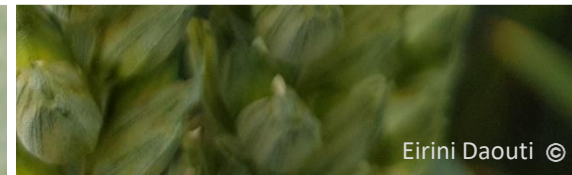
Nätvingar



Nyckelpigor



Blomflugor



Ekosystemtjänster av naturliga fiender



Bladluspredation



Ekosystemtjänster av naturliga fiender



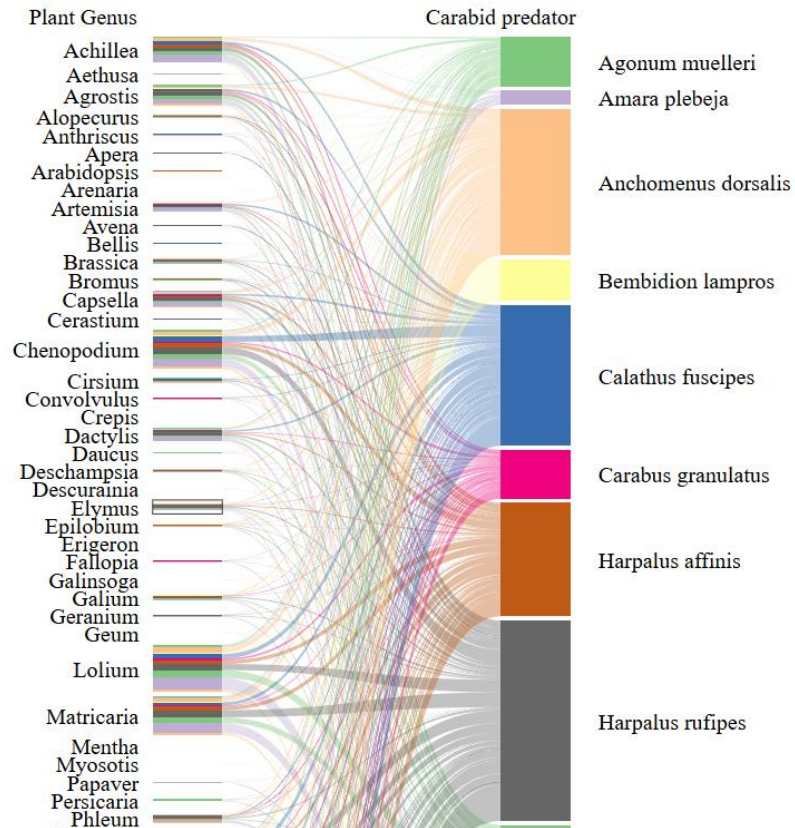
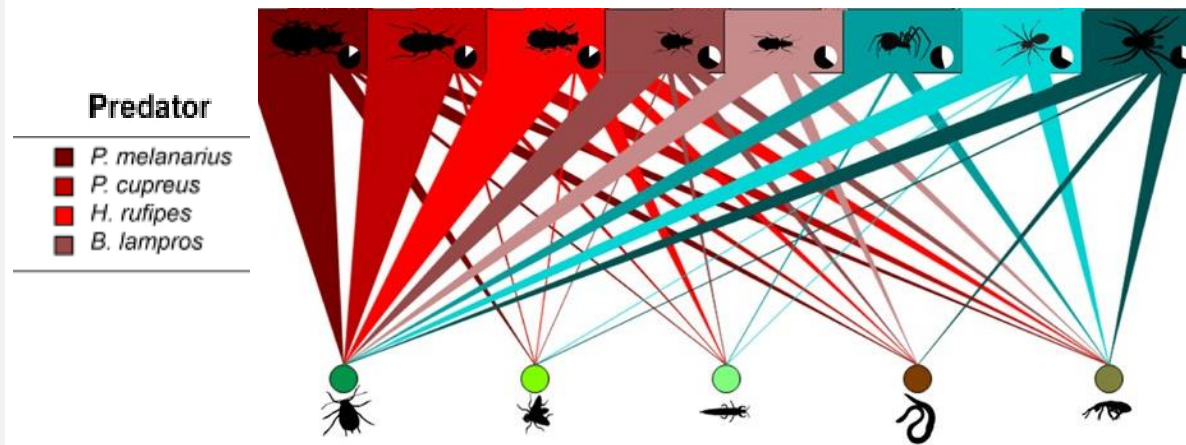
Bladluspredation

Ogräspredation



Många jordlöpare arter bidrar till bladluspredation & ogräspredation

Roubinet et al. (2017). Scientific reports
Daouti et al. In preparation



Varför de är viktiga

Hur vi kan
förbättra dem



Bladluspredation

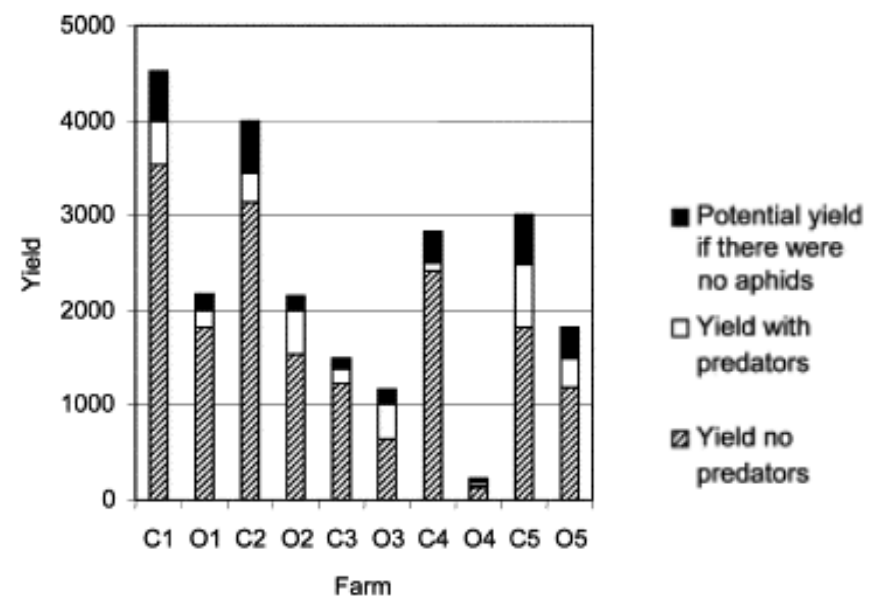
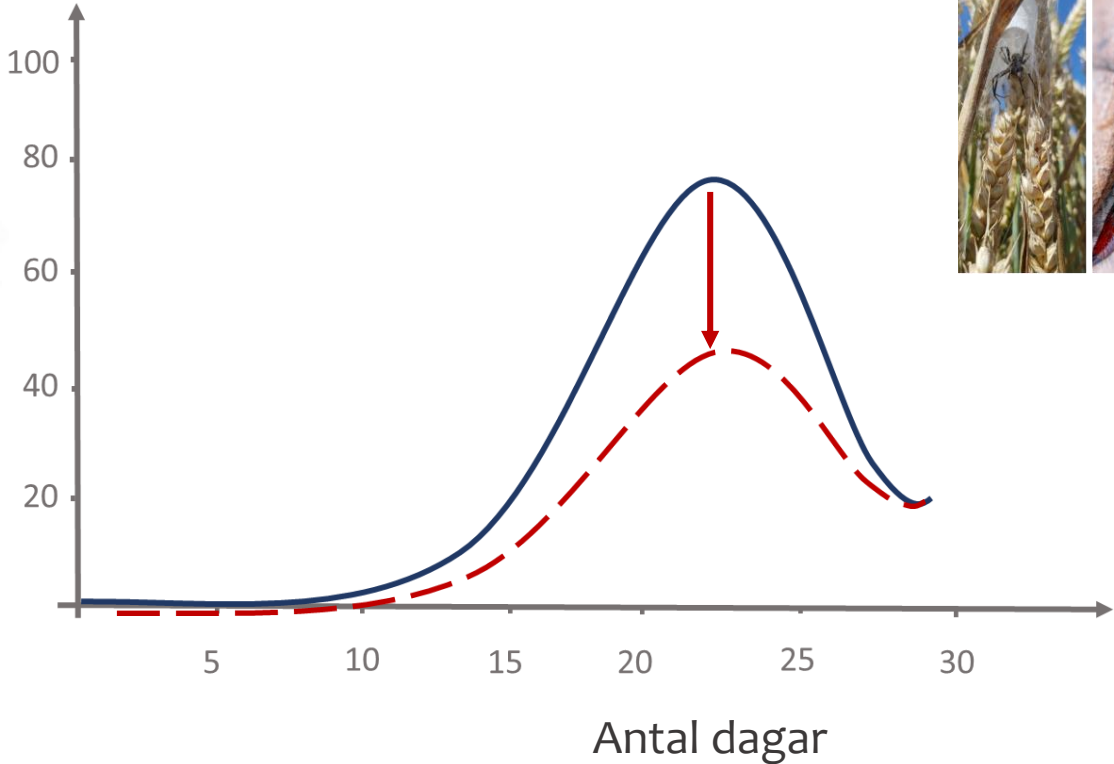


Ogräspredation



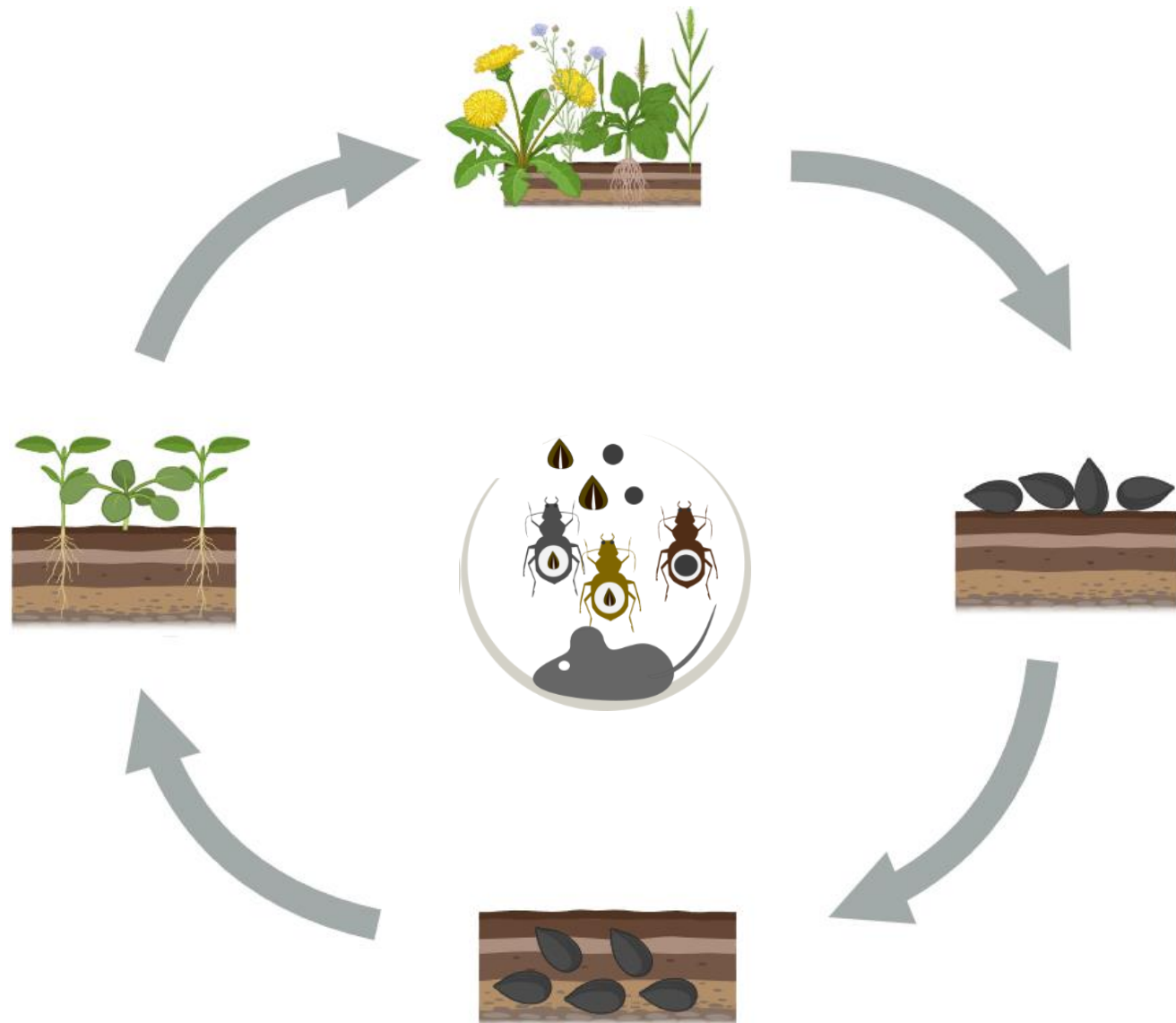
Bladluspredation

Minskade skördeförlusten 52%
30% ökning i ekologiska fält



Jordlöpare är viktiga för ogräsbekämpning

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



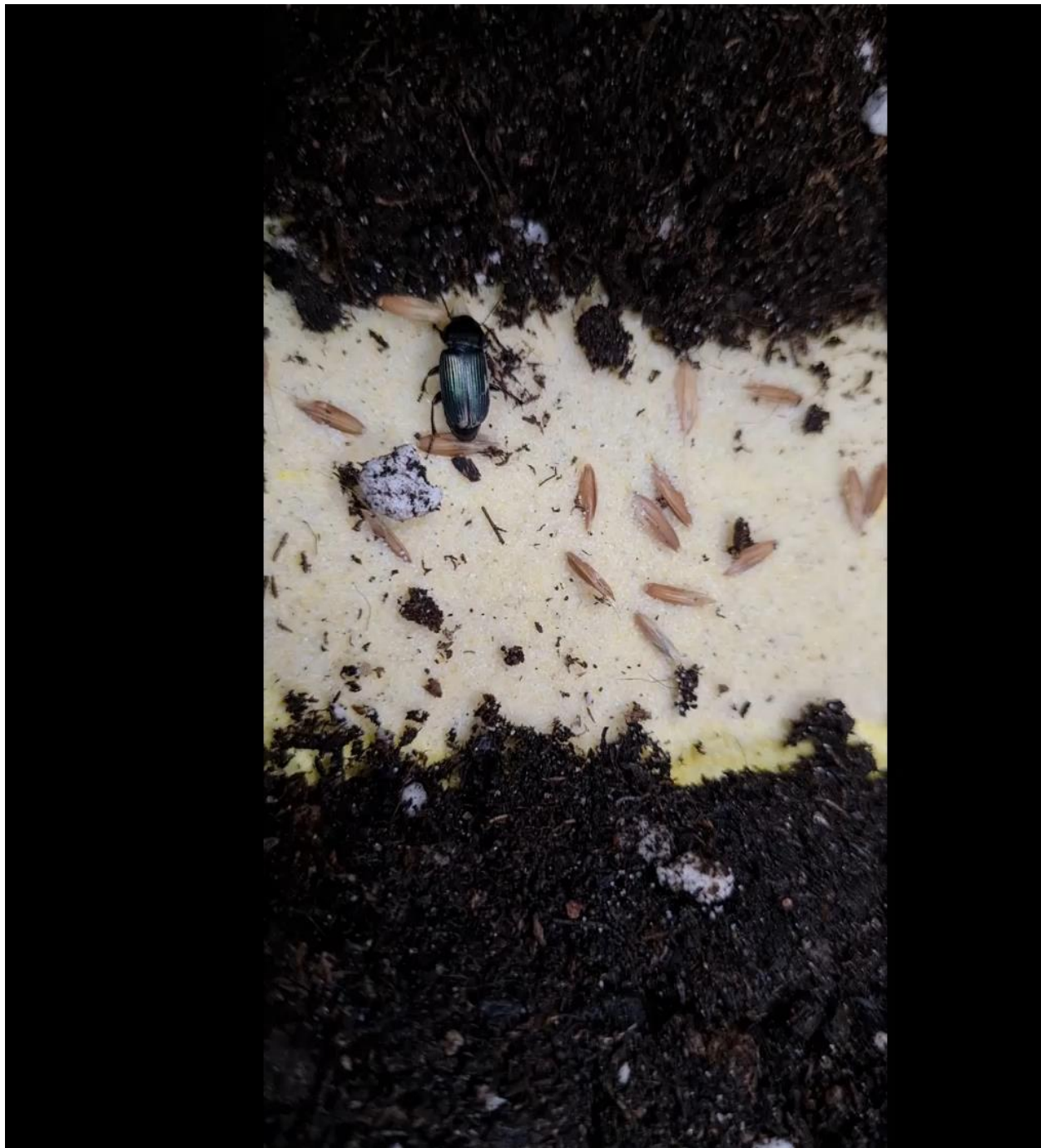
Jordlöpare är viktiga för ogräsbekämpning



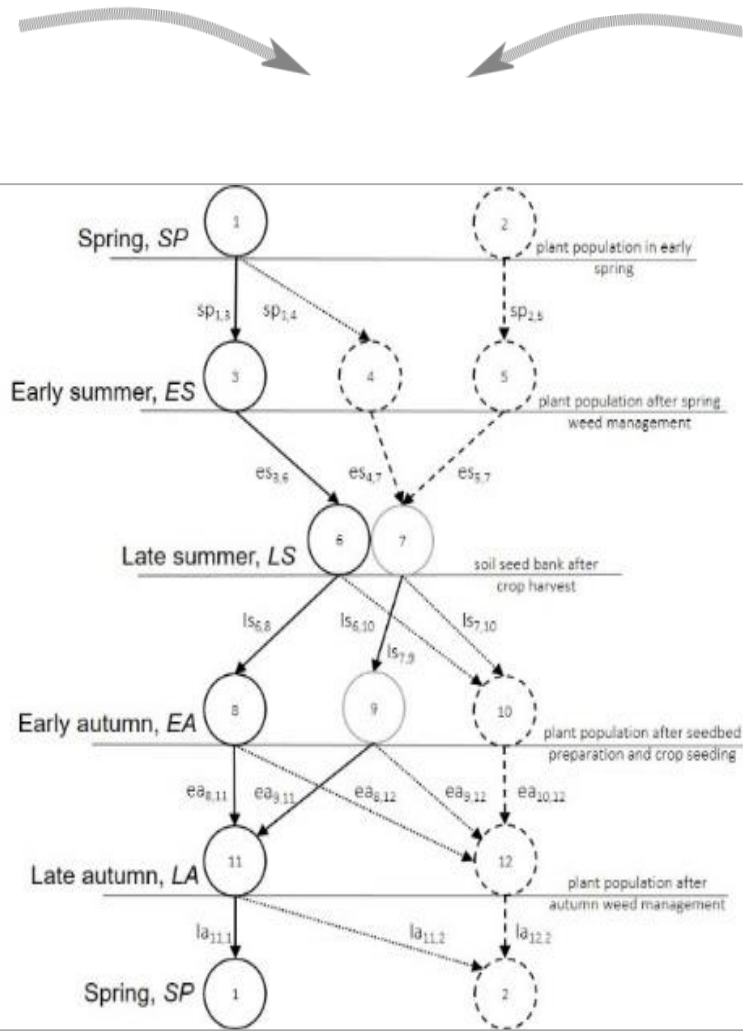
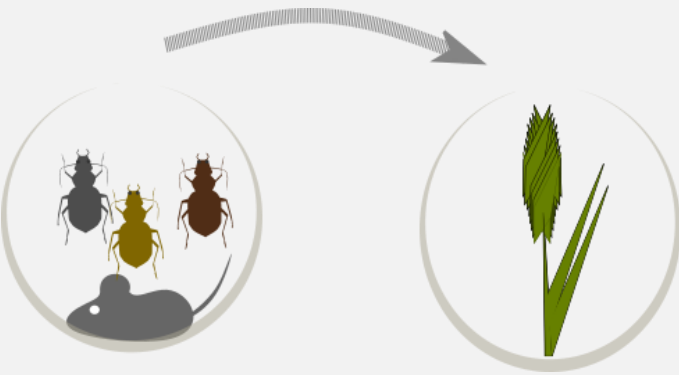
Westerman et al. (2005). *Weed Sc.*

Bohan et al. (2011) *J. Ap.Ecol*

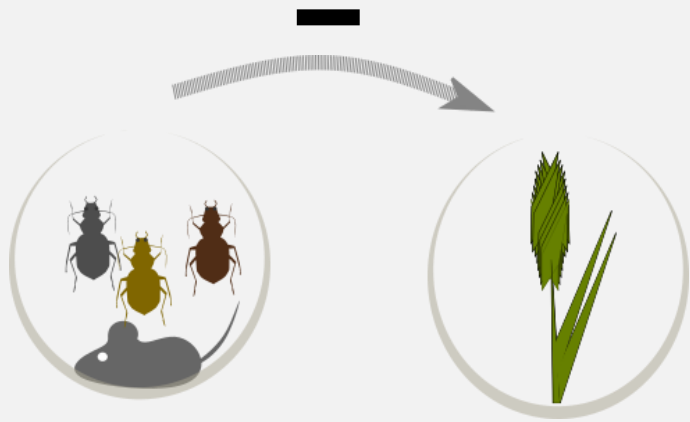
Daouti et al. (2022) *J. Ap. Ecol*



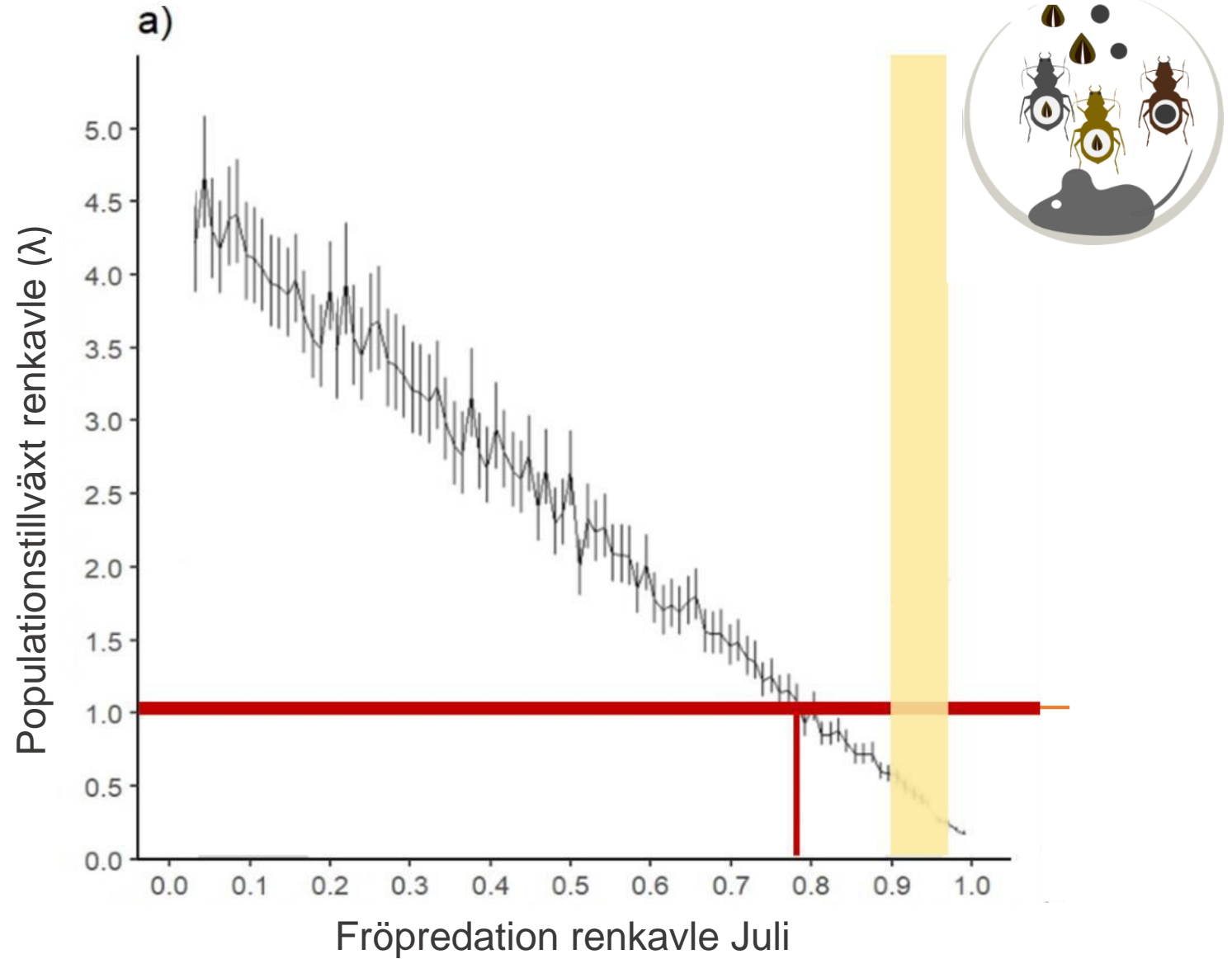
Ogräspredation



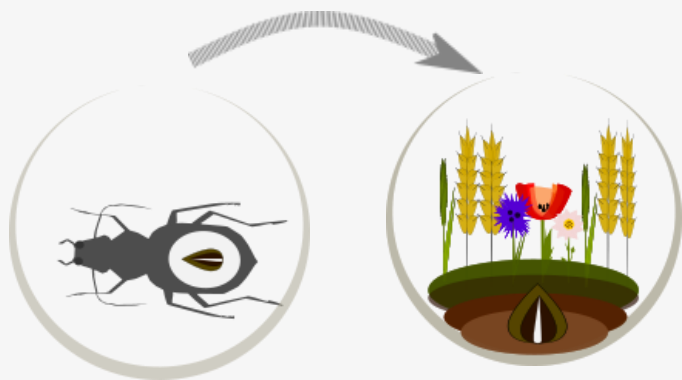
Ogräspredation



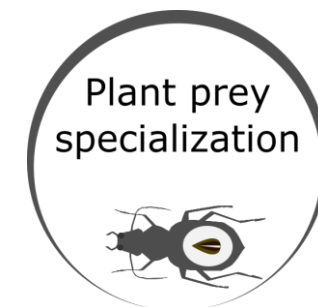
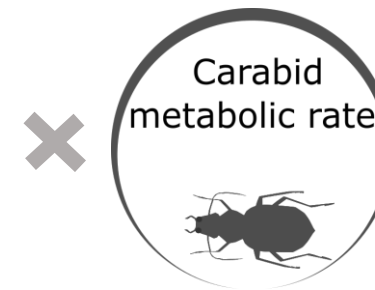
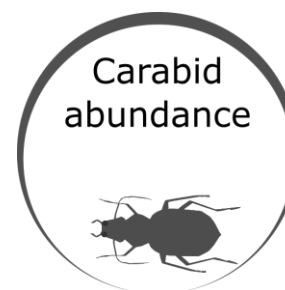
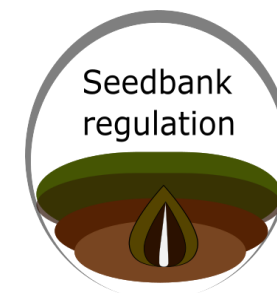
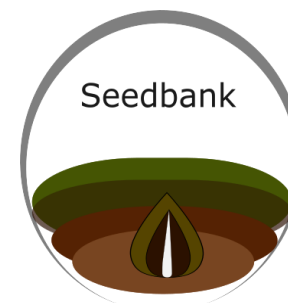
Reducerade renkavle's populationstillväxt



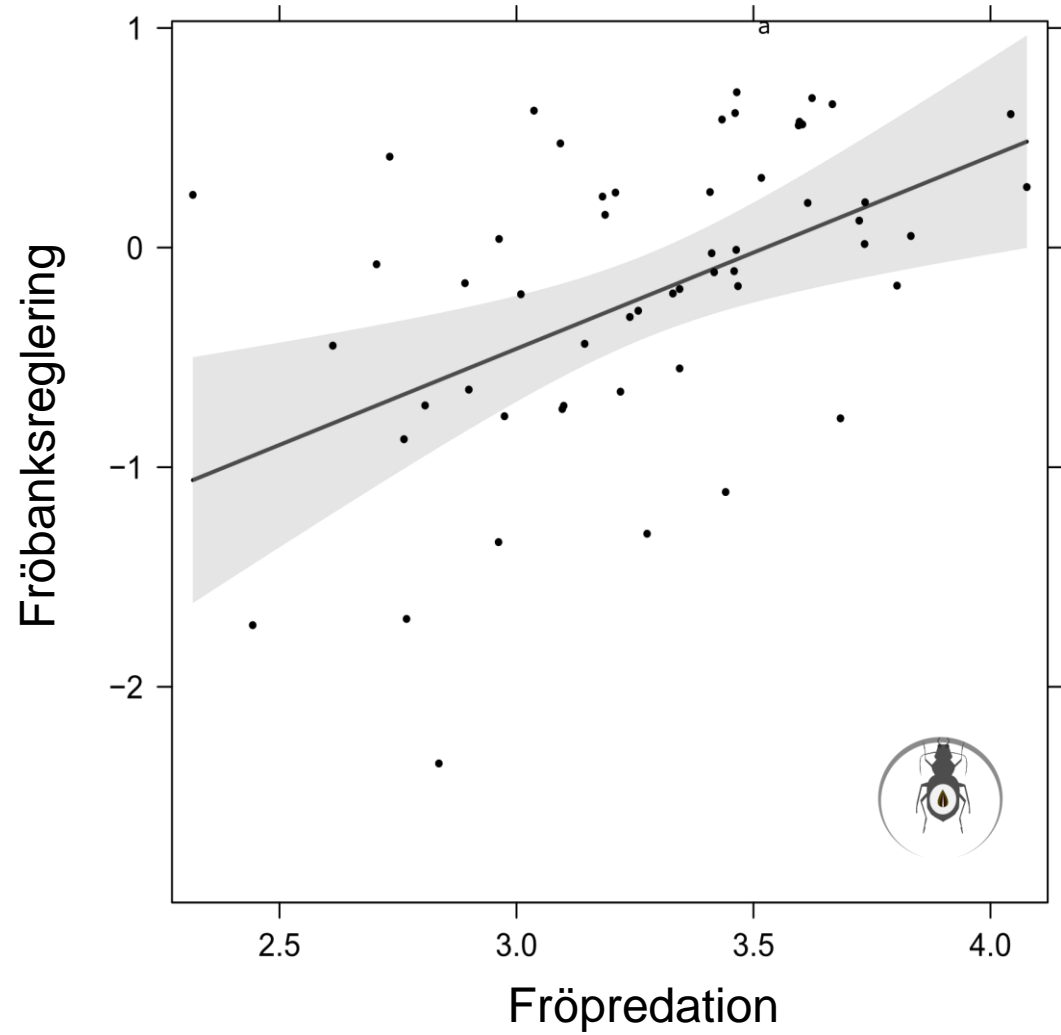
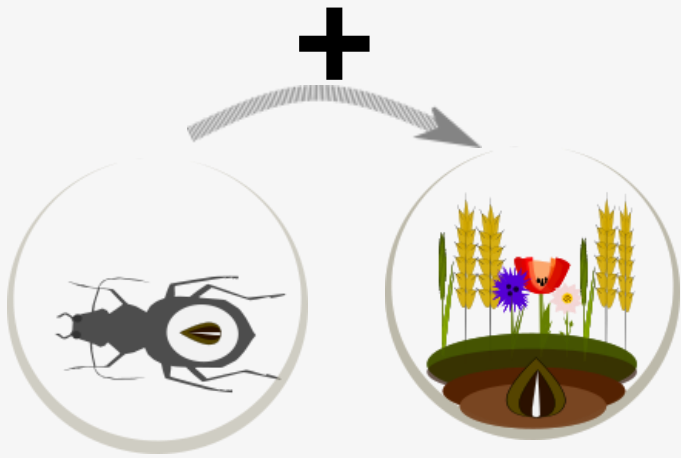
Fröbanks reglering



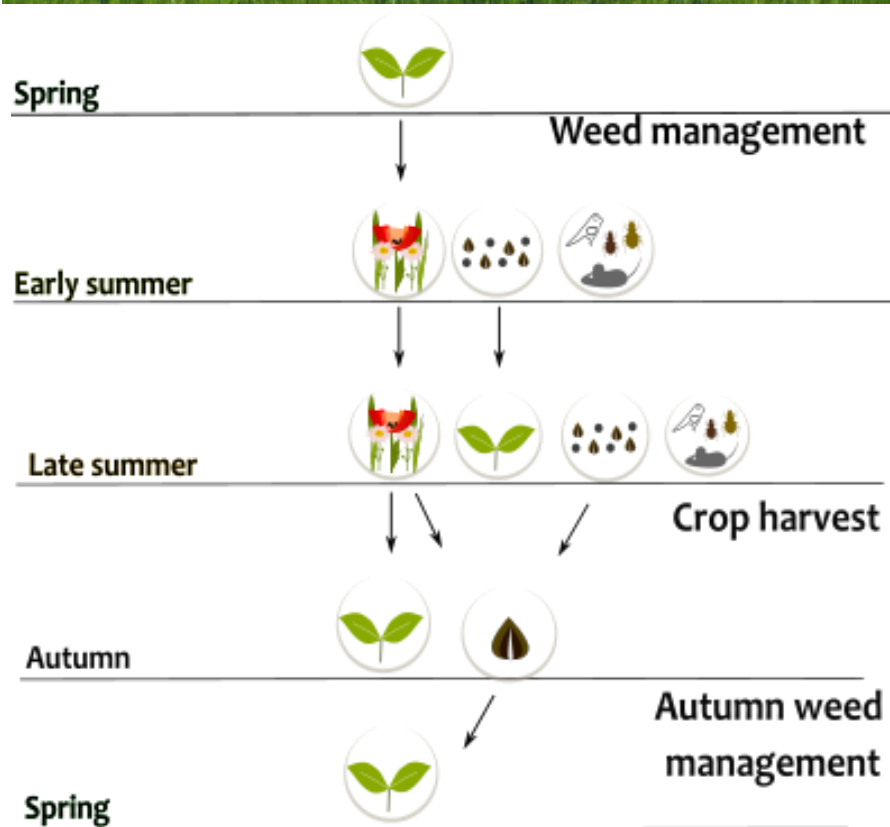
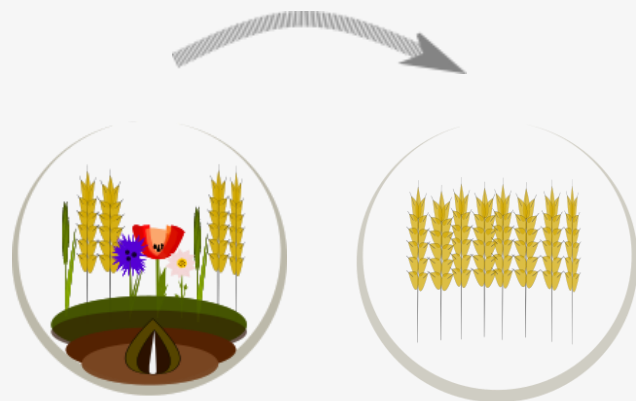
European level



Fröbanksreglering



Ogräspredationens påverkan på skörden



Hur vi kan
förbättra dem

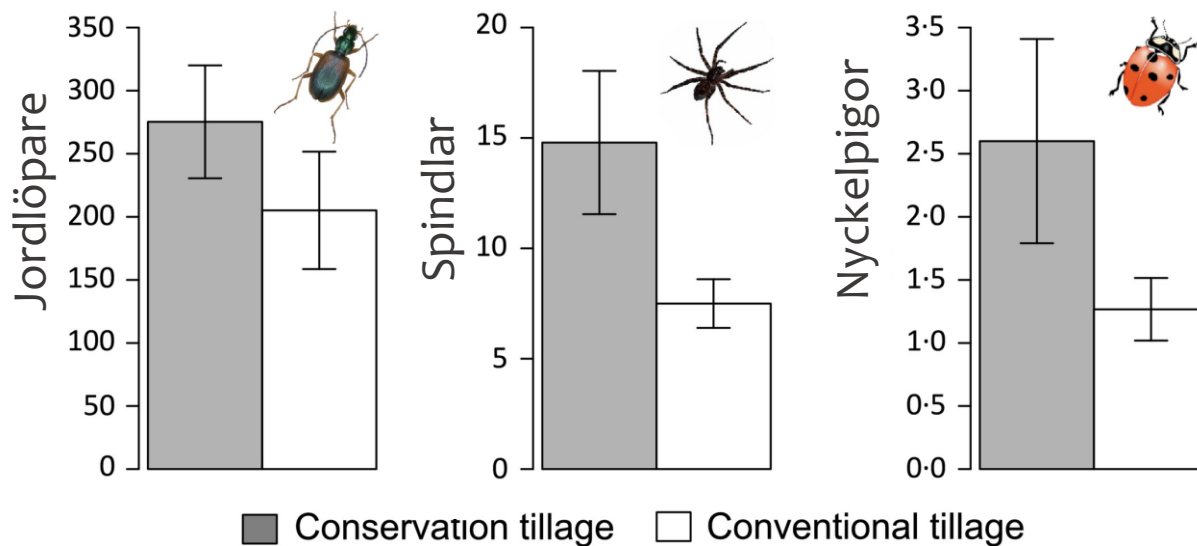
I fältet

**Utanför
fältet**



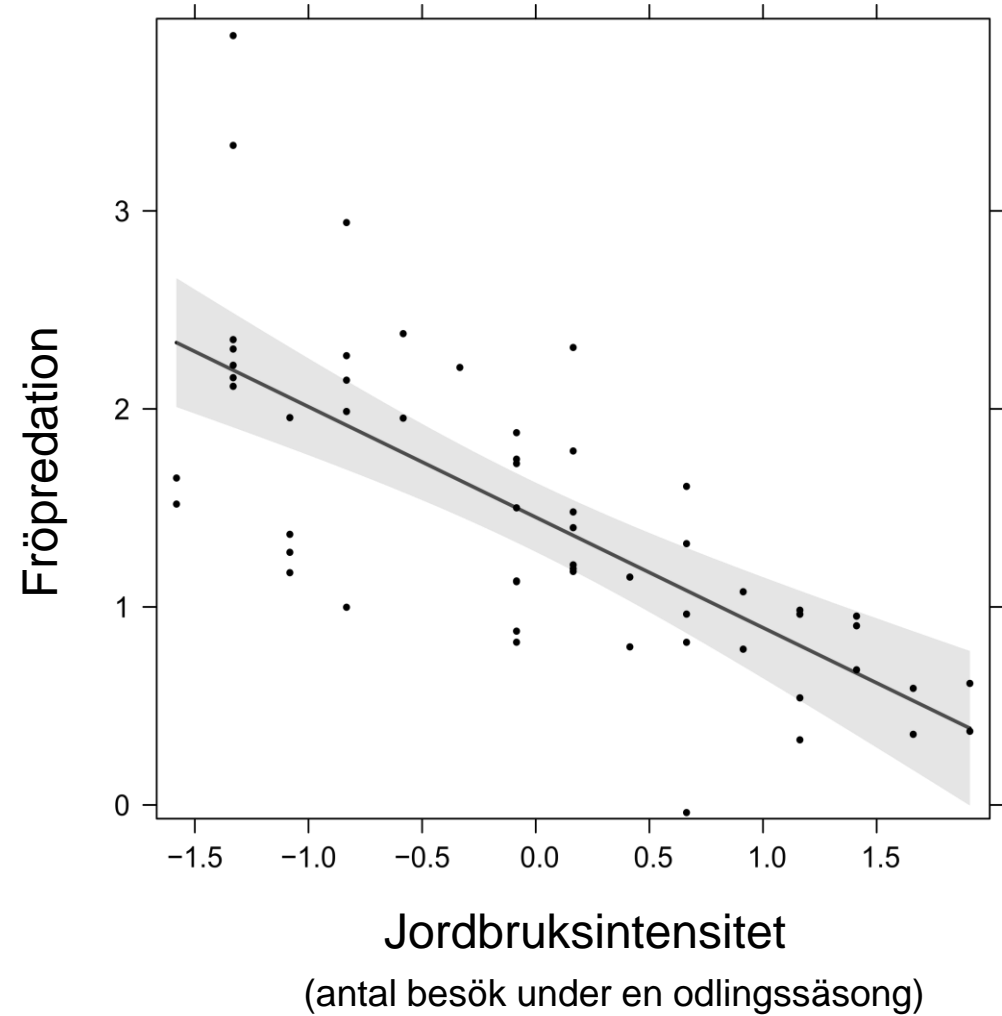
I fältet

Lägre bladluspredation med intensivt jordbruk



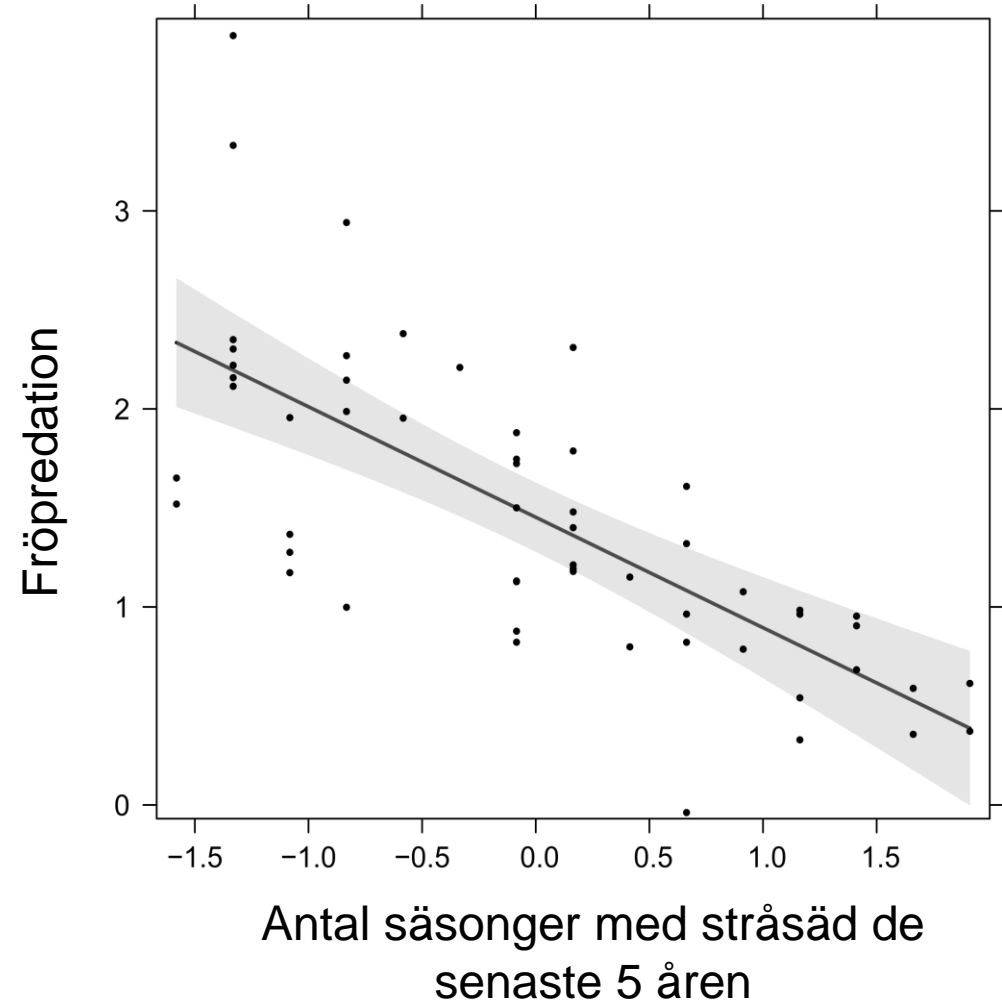
I fältet

Lägre fröpredation med intensivt jordbruk

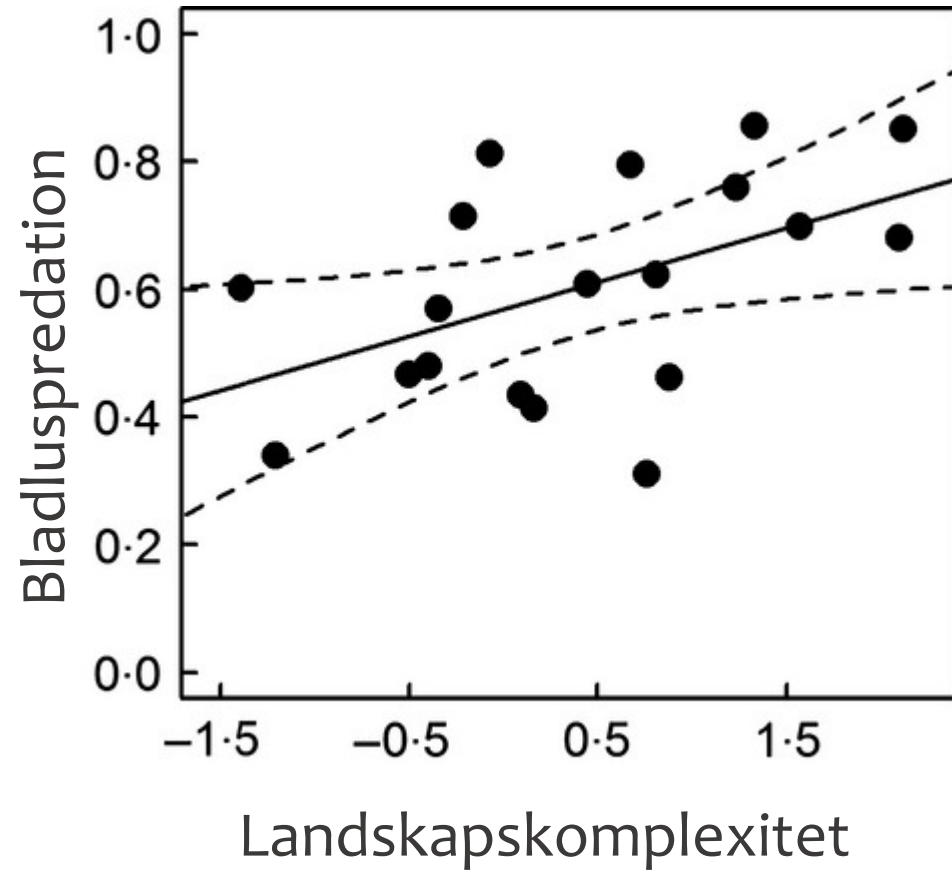


I fältet

Högre fröpredation med varierad växtföljd



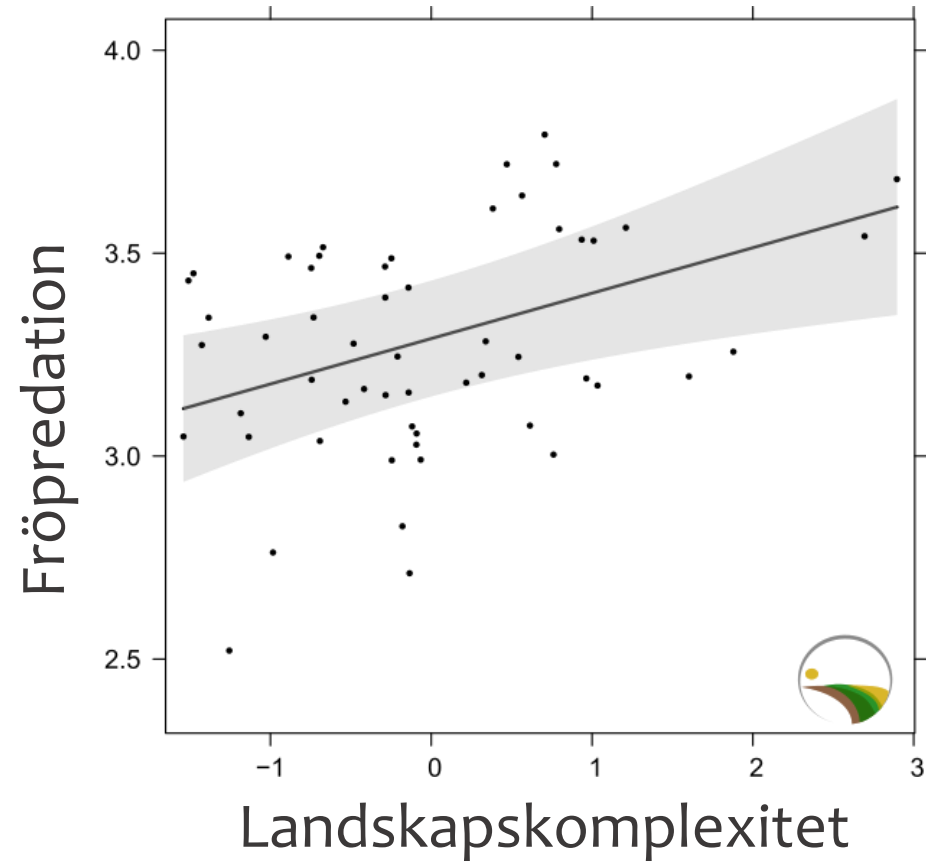
Högre bladluspredation i varierande landskap



Utanför
fältet



Högre fröpredation i varierande landskap

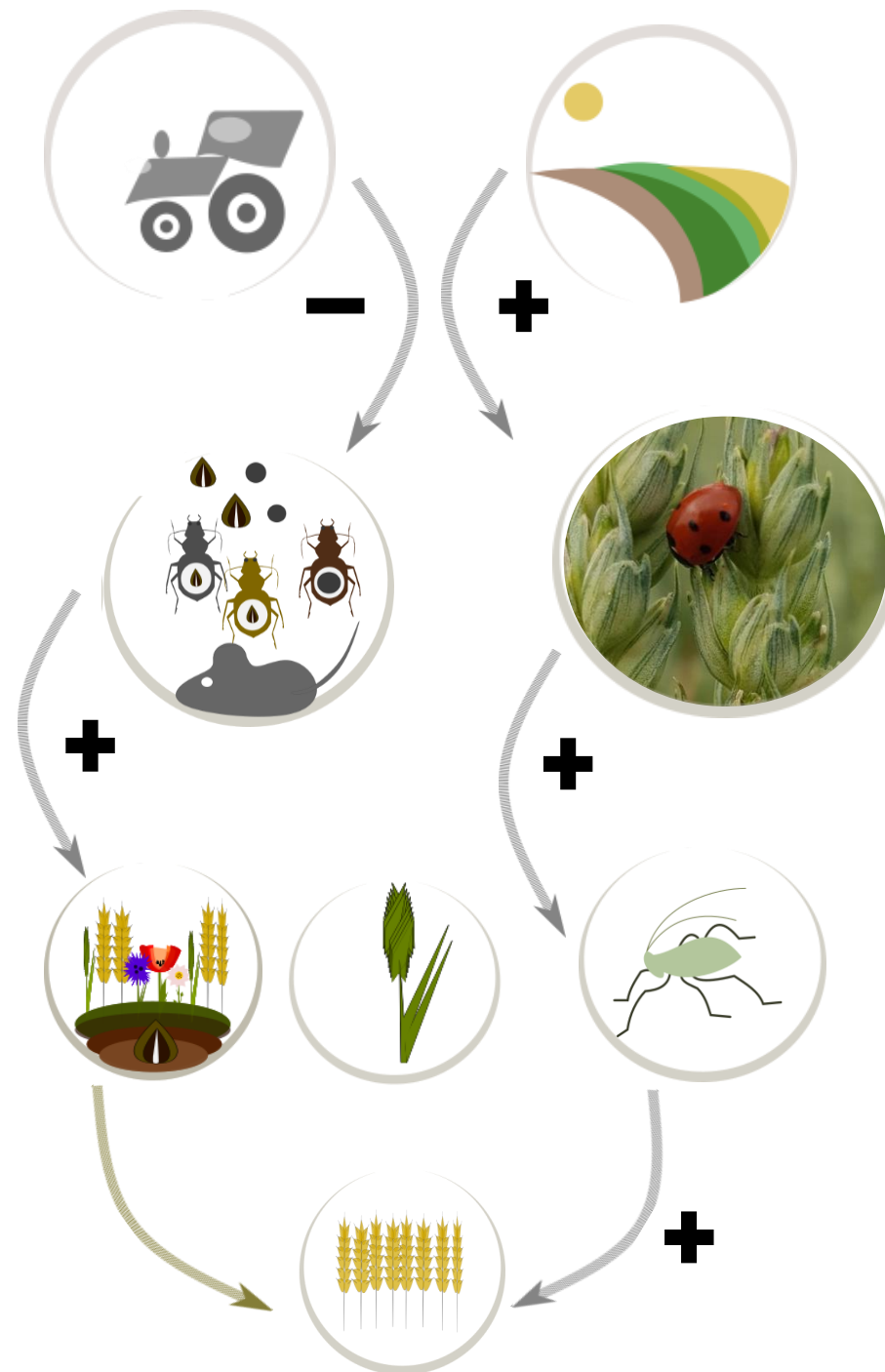


Daouti et al. submitting soon



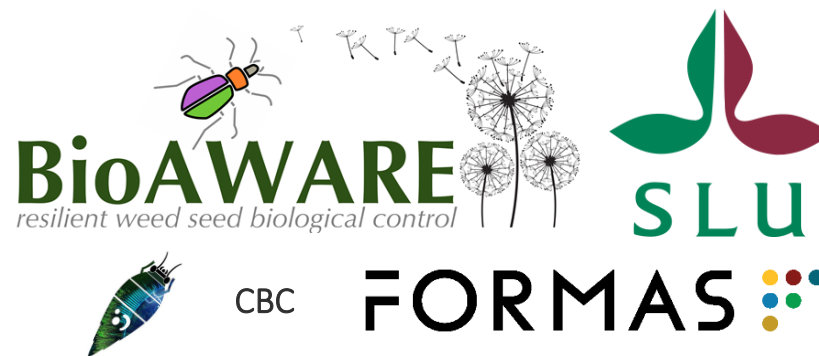
Utanför fältet

Sammanfattning

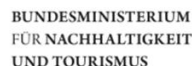


Tack 😊

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SCIENCE AND EDUCATION FOR SUSTAINABLE LIFE



Ministry of Agriculture, Nature and Food Quality of the Netherlands

