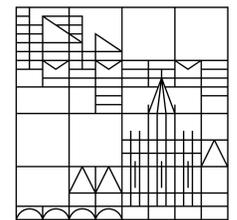


Plants that have recently become more common in their native range are also more likely to be successful as naturalized aliens

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Konstanz



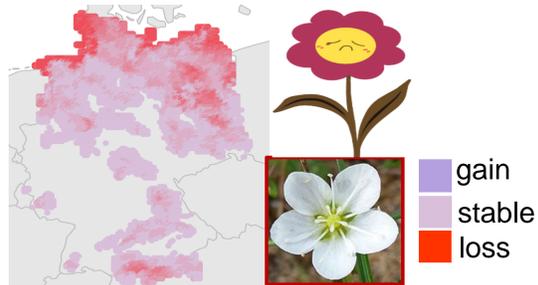
Rashmi Paudel, Trevor Fristoe, Nicole Kinlock, Amy Davis, Weihan Zhao, Hans van Calster, Milan Chytrý, Guillaume Decocq, Luise Ehrendorfer-Schrott, Zdenek Kaplan, Jan Wild, Wayne Dawson, Franz Essl, Holger Kreft, Jan Pergl, Petr Pyšek, Patrick Weigelt, Marten Winter & Mark van Kleunen

Because of increasing human pressure

- Many plant species are **declining**, becoming **losers at home**¹,
- However, some species are **increasing**, becoming **winners at home**¹.

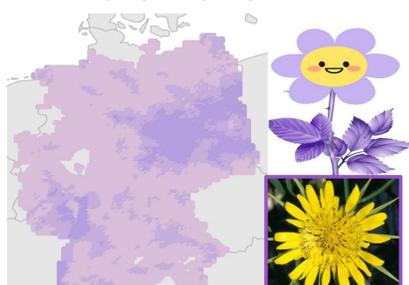
Change in German native range (1960 -2017)

Loser at home

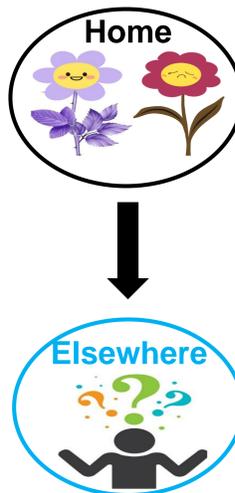


Sagina nodosa

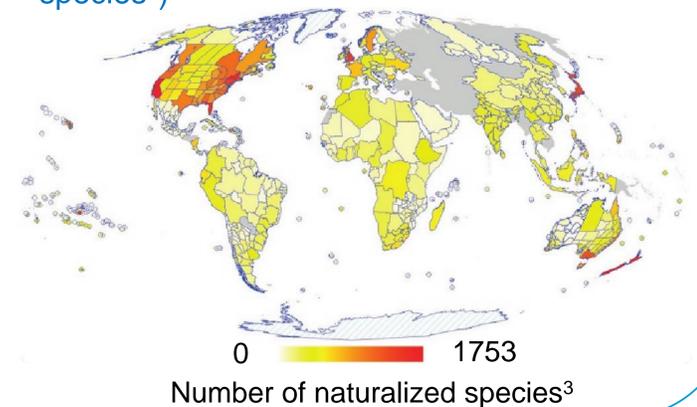
Winner at home



Tragopogon dubis

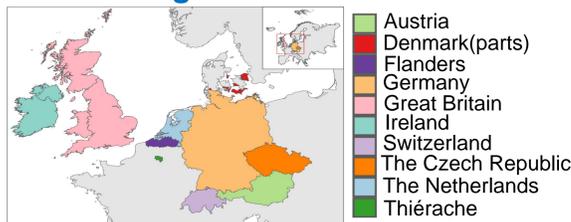


- Concurrently, some species have been introduced and established self-sustaining populations elsewhere (**naturalized alien species**²)

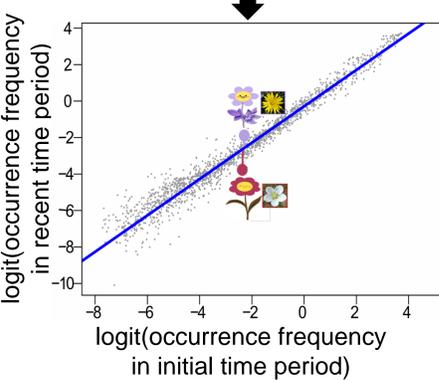


Are the winners at home also winners elsewhere ?

Data on native occurrence frequencies for two periods in different regions



Quantifying change in occurrence frequency at home⁴

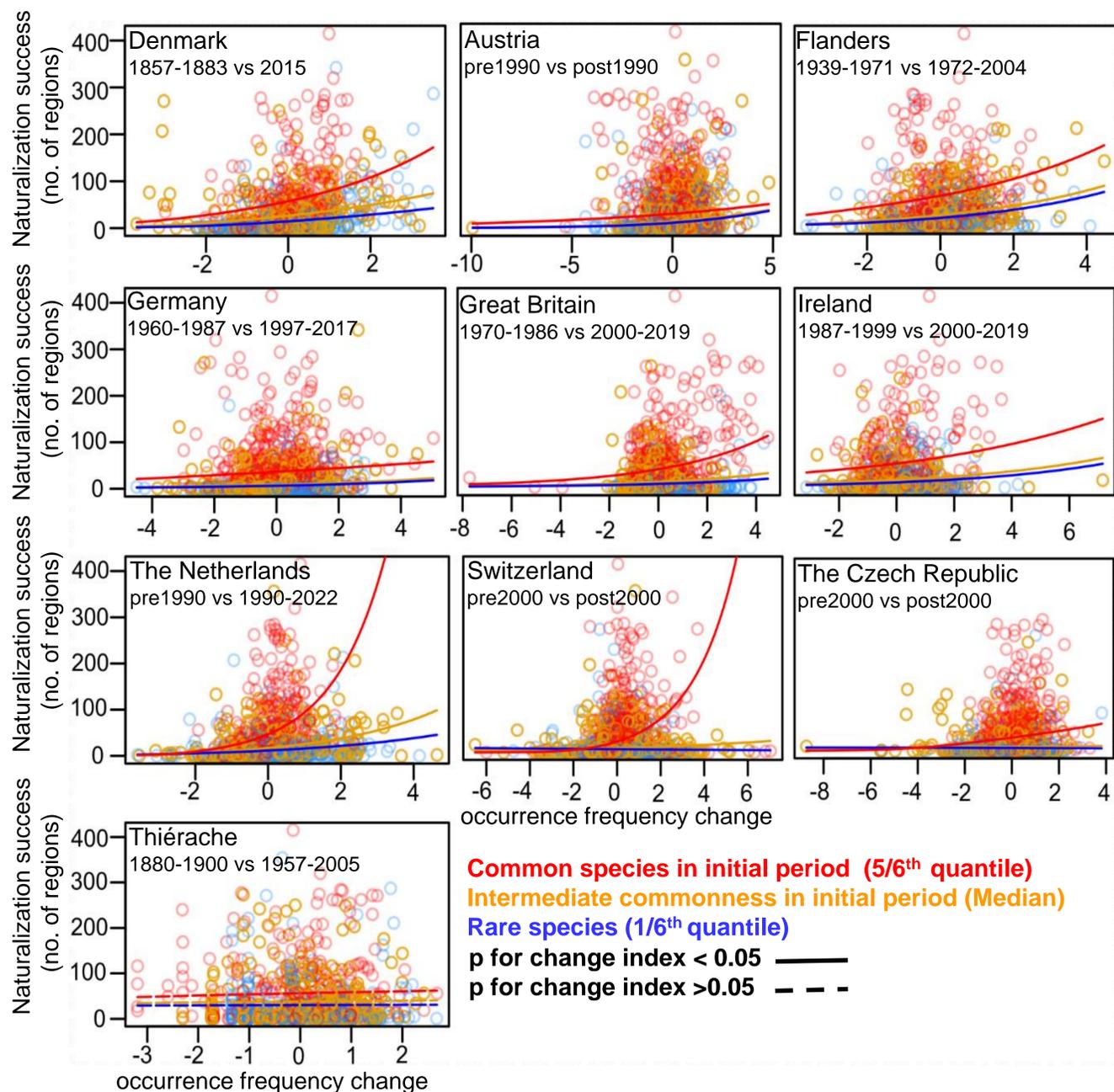


Taxonomic harmonization and data alignment

Royal Botanic Gardens Kew | Plants of the World Online

Hurdle model for each region separately

Number of GloNAF regions ~ initial occurrence frequency + occurrence frequency change + initial:change



Are the winners at home also winners elsewhere ?



- Global naturalization success was higher for species that were common in their native range during the initial time period.
- Global naturalization success was higher for species that have become more common over the period (winners) in their native range.
- Global naturalization success was even higher for species that were already common and have become even more common in their native range (Czech Republic, the Netherlands and Switzerland).

Acknowledgements



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References

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Pictures

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