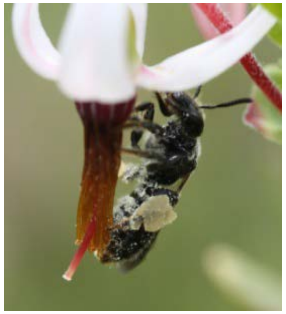


Das Bestäuber-Assessment und erste Wirkungen in Forschung und Lehre

Alexandra-Maria Klein
Chair of Nature Conservation and Landscape Ecology
University of Freiburg

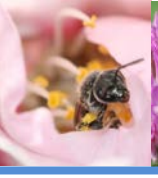
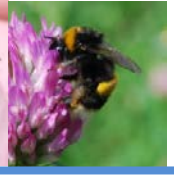
Josef Settele
UFZ, Helmholtz Centre for Environmental Research Halle

5. Nationales Forum zu IPBES, 09.02.2017

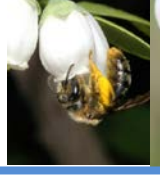
Pollinators, Pollination & Food Production – **Das Team**

~90 experts from all regions:

- 2 Co-chairs: Simon Potts (UK), Vera Fonseca (Brazil)
- 17 Coordinating Lead Authors (**D: Josef Settele**)
- 44 Lead Authors (**D: Robert Paxton, Alexandra Klein, Christian Maus**)
- 13 Review Editors
- 1 Technical Support Coordinator (UN)

Pollinators, Pollination & Food Production – Die Kapitel



Assessment Report, pp. 868 (ca. 230 Haupttext)

0: SPM (23pp.)

1: Background to pollinators, pollination & food production (37pp.)

2: Drivers of change of pollinators, pollination networks & pollination (197pp.)

3: The **status and trends** in pollinators & pollination (92pp.)

4: Economic valuation of pollinator gains and losses (125pp.)

5: Biocultural diversity, pollinators & their socio-cultural values (134pp.)

6: Responses to risks and opportunities associated with pollinators & pollination (220pp.)

Glossary (17pp.)

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Science and Policy for People and Nature

Pollinators, Pollination & Food Production
– SPM: ZF für polit. Entscheidungsträger

SPM (36pp)

- D: J. Settele
- 23 Hauptaussagen Bestäuber/Bestäubung

  A Wert (9)

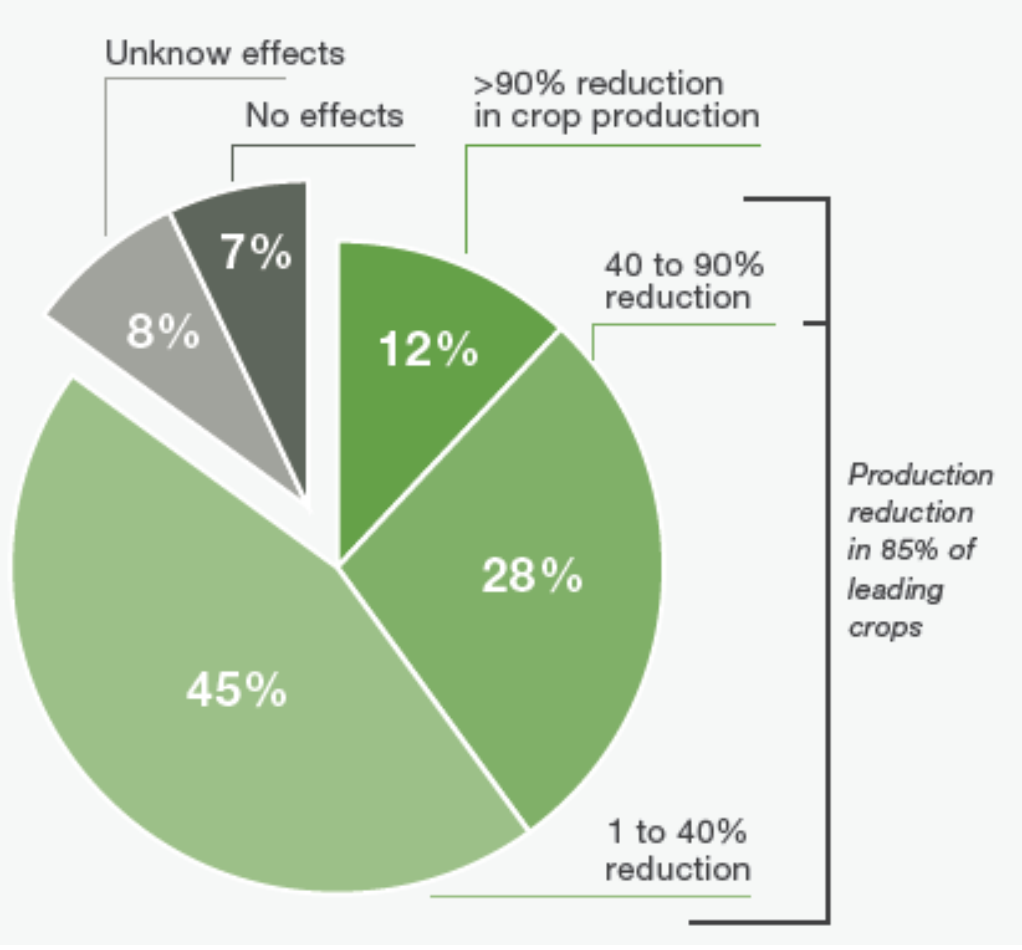
  B Status & Trends (4)

  C Treiber, Risiko, Chancen, Management, Politik (10)

- 6 UN Sprachen

Aussage 2

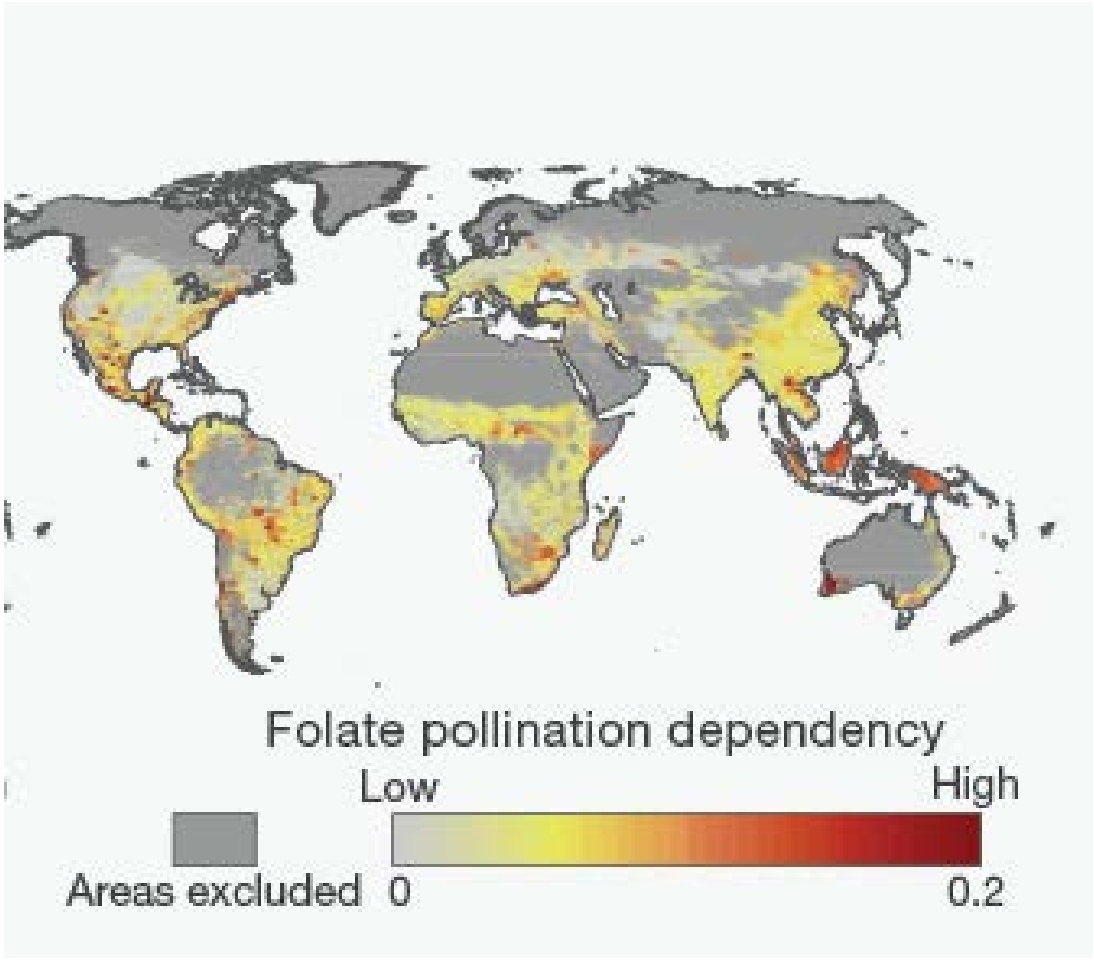
"¾ der wichtigen globalen Kulturpflanzen können von Tierbestäubung profitieren"



Pollinators, Pollination & Food Production – Wert von Tierbestäubung

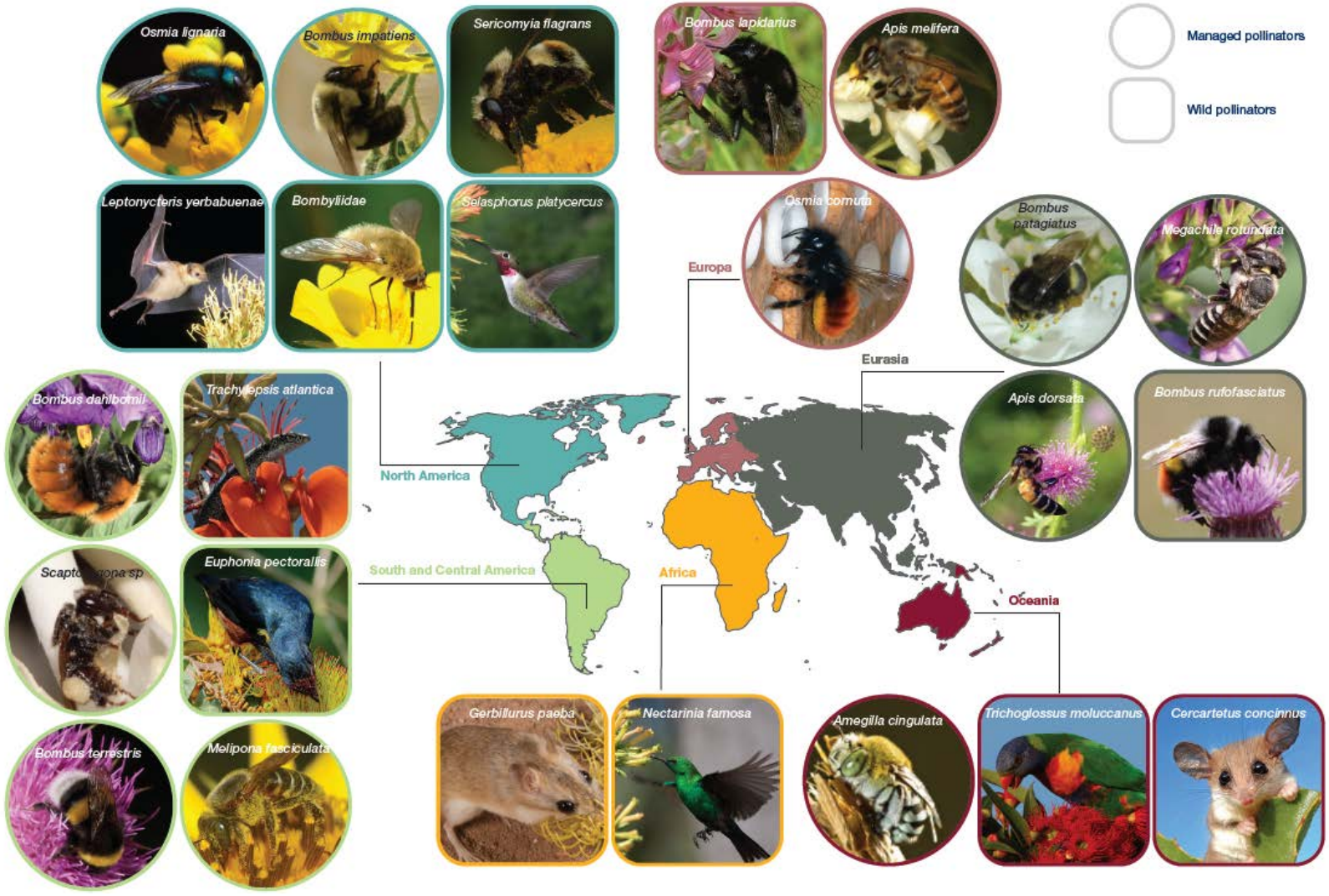
Aussage 5

Kulturpflanzen, die von Bestäubern profitieren, tragen zu einer gesunden menschlichen Ernährung bei”



Aussage 6

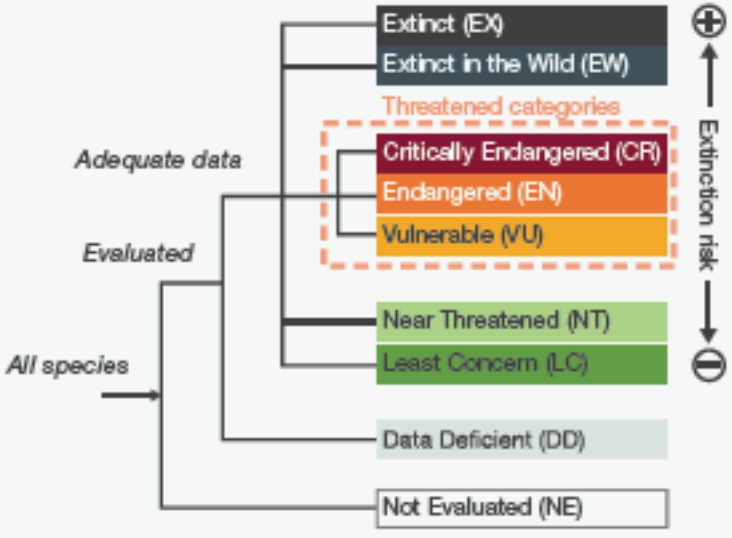
"Wilde/ gehaltene Bestäuber tragen zur Tierbestäubung bei…"

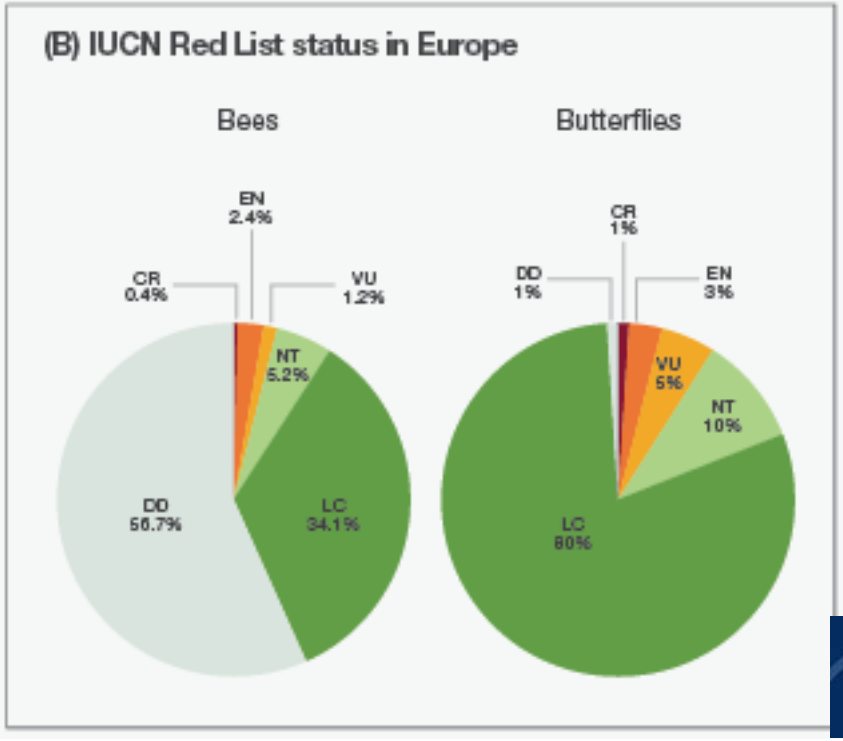


Aussage 12

"16,5% Wirbeltier-Bestäuber auf der Roten Liste (IUCN)…

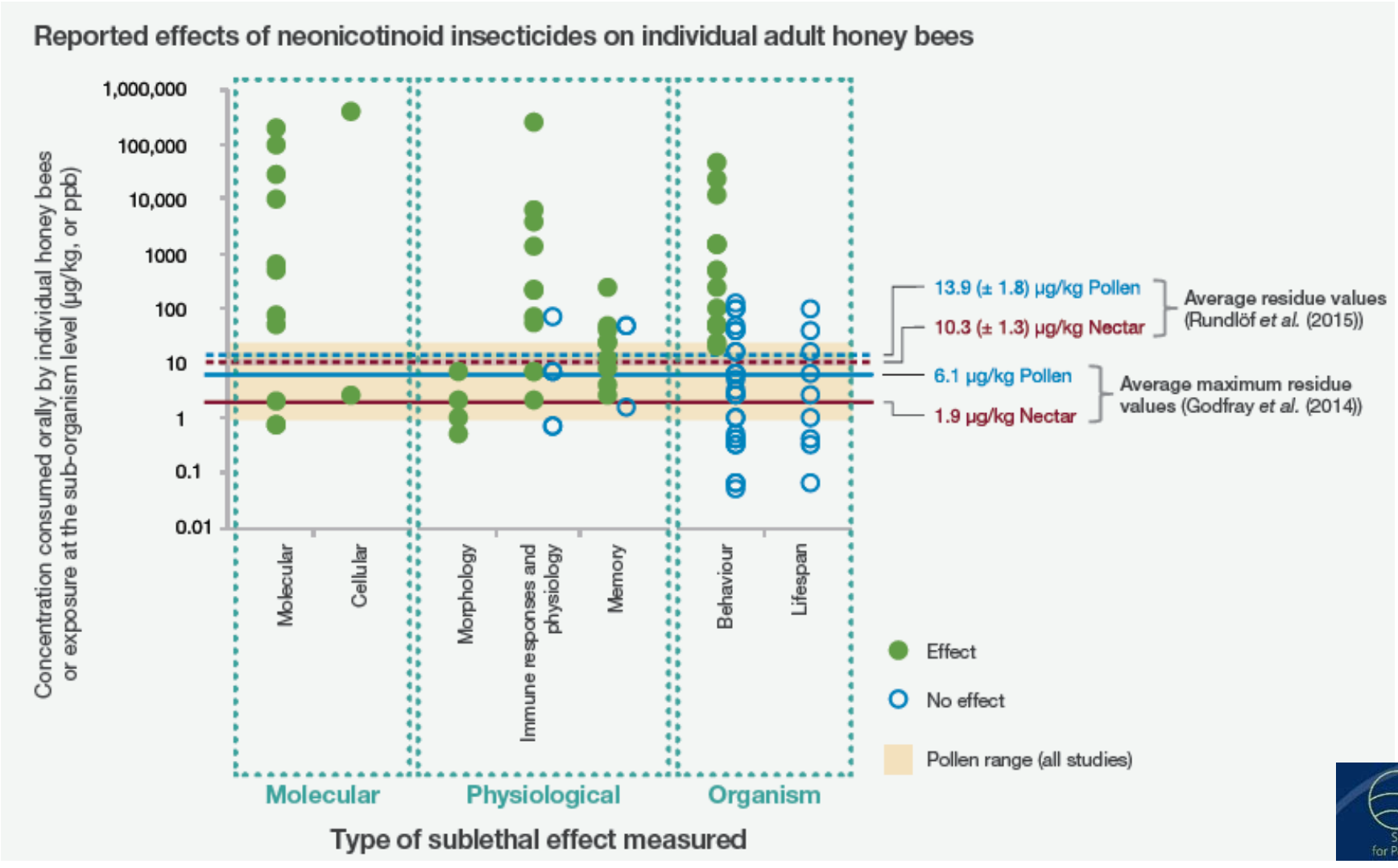
…Keine globale Roten Listen für Insektenbestäuber "

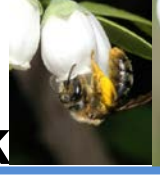




Aussage 19

"Belastung durch Pestizide…kann durch IPM reduziert werden..."





Aussage 24

"Aktionen um Bestäuber zu fördern könnten mit einer besseren Steuerung effektiver implementiert werden"

- Politische Steuerung sollte lokale Gegebenheiten berücksichtigen (z.B. Bundesländer, Ökoregionen)
- Kollaborative Aktionen zwischen verschiedenen Sektoren (Landwirtschaft, Naturschutz, Wissenschaft)
- …und Rechtssystemen (privat, Regierung, nicht für Profit) und verschiedene Skalen (lokal, national, global)
- Effektive Steuerung benötigt veränderte soziale Normen

Pollinators, Pollination & Food Production – Auswirkungen auf Forschung

Förderung von

- **Vernetzung**
- **Forschungs-output**
- **Transdis-ziplinäre Einblicke (GFÖ)**

BIODIVERSITY

Ten policies for pollinators

What governments can do to safeguard pollination services

By Lynn V. Dicks,[1] Blandina Viana,[2] Riccardo Bommarco,[3] Berry Brosi,[4] María del Coro Arizmendi,[5] Saul A. Cunningham,[6] Leonardo Galetto,[7] Rosemary Hill,[8] Ariadna V. Lopes,[9] Carmen Pires,[10] Hisatomo Taki,[11] Simon G. Potts[12]

A bumblebee (*Bombus terrestris*) collecting pollen from a blueberry flower. Unregulated trade in bumblebees puts them outside their native range.

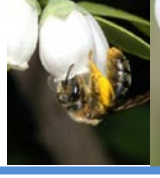
and the European Union's (EU's) Sustainable Use of Pesticides Directive (*10*). IPM combines pest monitoring with a range of pest control methods, such as crop rotation, field margin management, and biological control; pesticides are used as a last resort, only when other strategies are insufficient (*11*). IPM can decrease pesticide use and reduces risks to nontarget organisms, so it should be linked to pollinator health and pollination.

Genetically modified (GM) crops pose potential risks to pollinators through poorly understood sublethal and indirect effects (*1*). For example, GM herbicide-tolerant crops lead to increased herbicide use, reducing the availability of flowers in the landscape, but consequences for pollinators are unknown. GM crop risk assessments in most countries do not capture these effects. They evaluate only direct effects of acute exposure to proteins expressed in the GM plants, usually in terms of the dose that kills 50% of adults (LD_{50}), and only for honey bees, not other pollinators. International guidance to improve GM organism risk assessment is being developed under the CBD's Cartagena Protocol on Biosafety (*12*); this presents an opportunity to encourage inclusion of indirect and sublethal effects on a range of pollinator species.

There are substantial risks from move-

ence.sciencemag.org/ on November 25, 2016

Pollinators, Pollination & Food Production
– Auswirkungen auf Forschung



Förderung von

- **Sichtbarkeit**
- **Material für Vorträge**

(Wissenschaft/ Transfer)

REVIEW

doi:10.1038/nature20588

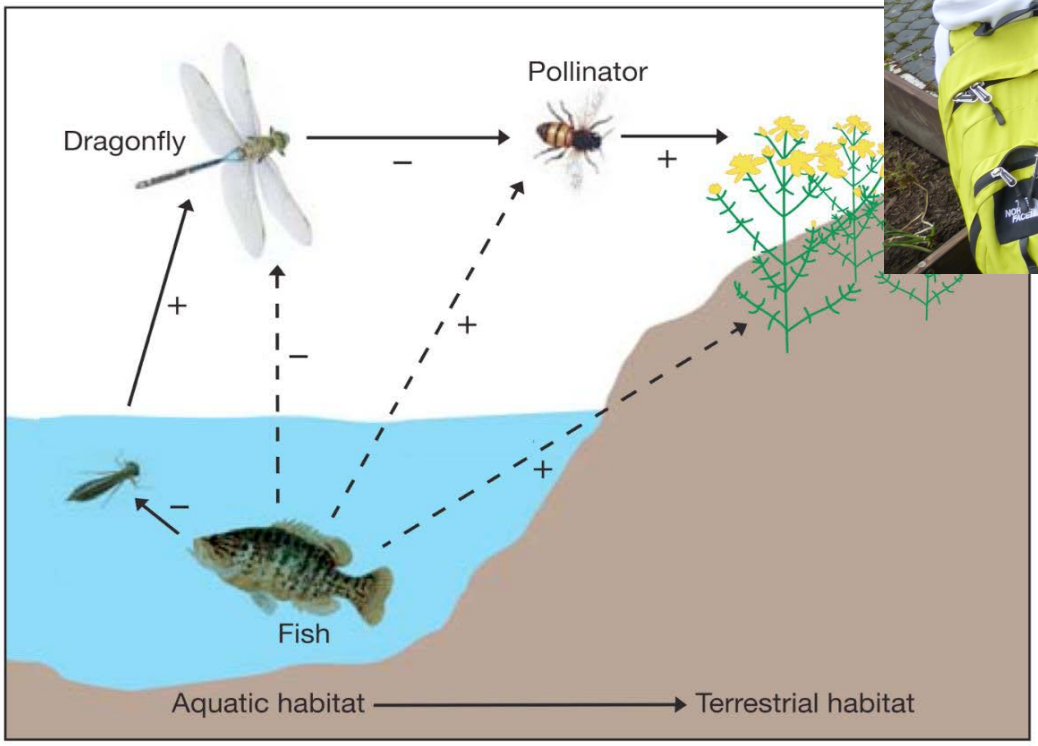
Safeguarding pollinators and their values to human well-being

Simon G. Potts[1], Vera Imperatriz-Fonseca[2], Hien T. Ngo[3], Marcelo A. Aizen[4], Jacobus C. Biesmeijer[5,6], Thomas D. Breeze[1], Lynn V. Dicks[7], Lucas A. Garibaldi[8], Rosemary Hill[9], Josef Settele[10,11] & Adam J. Vanbergen[12]

Pollinators, Pollination & Food Production – Auswirkungen auf Lehre & Politik

Förderung von

- Transdiziplinäres Arbeiten
- Politikberatung
- Materialien



- Anhörung Umweltausschuß, BT ´16
- Einladung Grünen-Fraktion für 3/17

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Danke