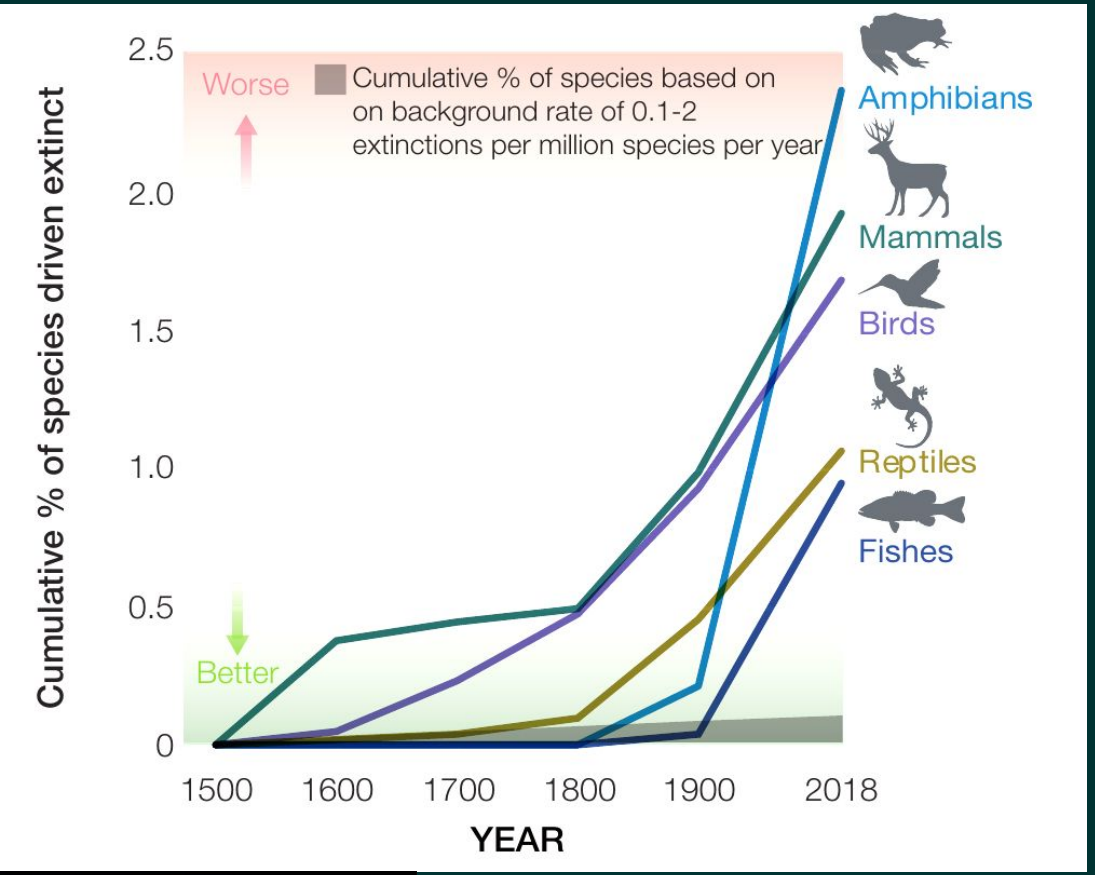
Lucas Garibaldi

Diseño de paisajes agropecuarios

Extinción de especies



CellPress
Gold Standard for the Global Goals
3 tons of CO_2 offset
One Earth

Article

Worldwide occurrence records suggest a global decline in bee species richness

Eduardo E. Zattara[1,2,3,5,*] and Marcelo A. Aizen[1,4]

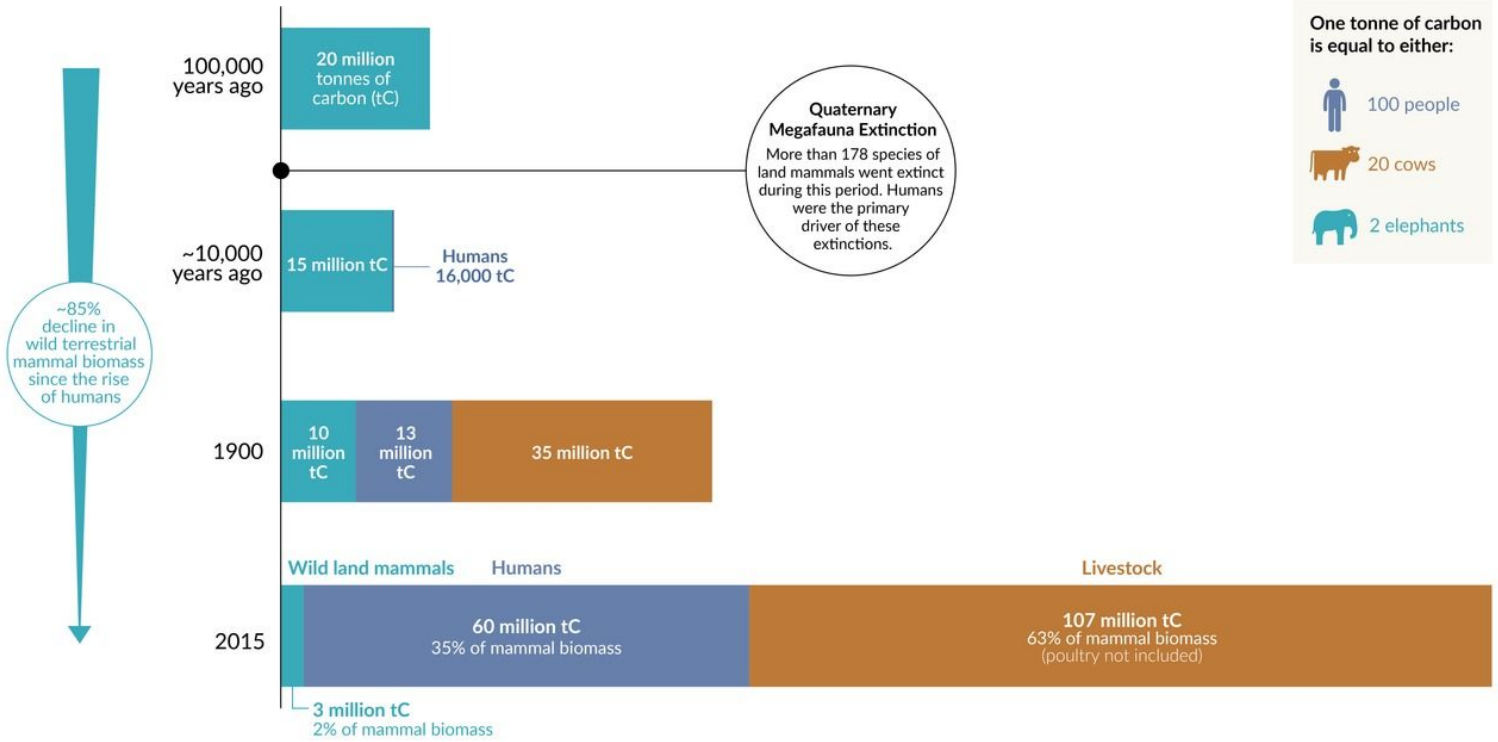
Intergovernmental Platform on Biodiversity & Ecosystem Services

Ceballos *et al.* (2015) *Sci. Adv.*
Díaz, *et al.*, Garibaldi, *et al.* (2019) *Science*

Changing distribution of the world's land mammals

Our World in Data

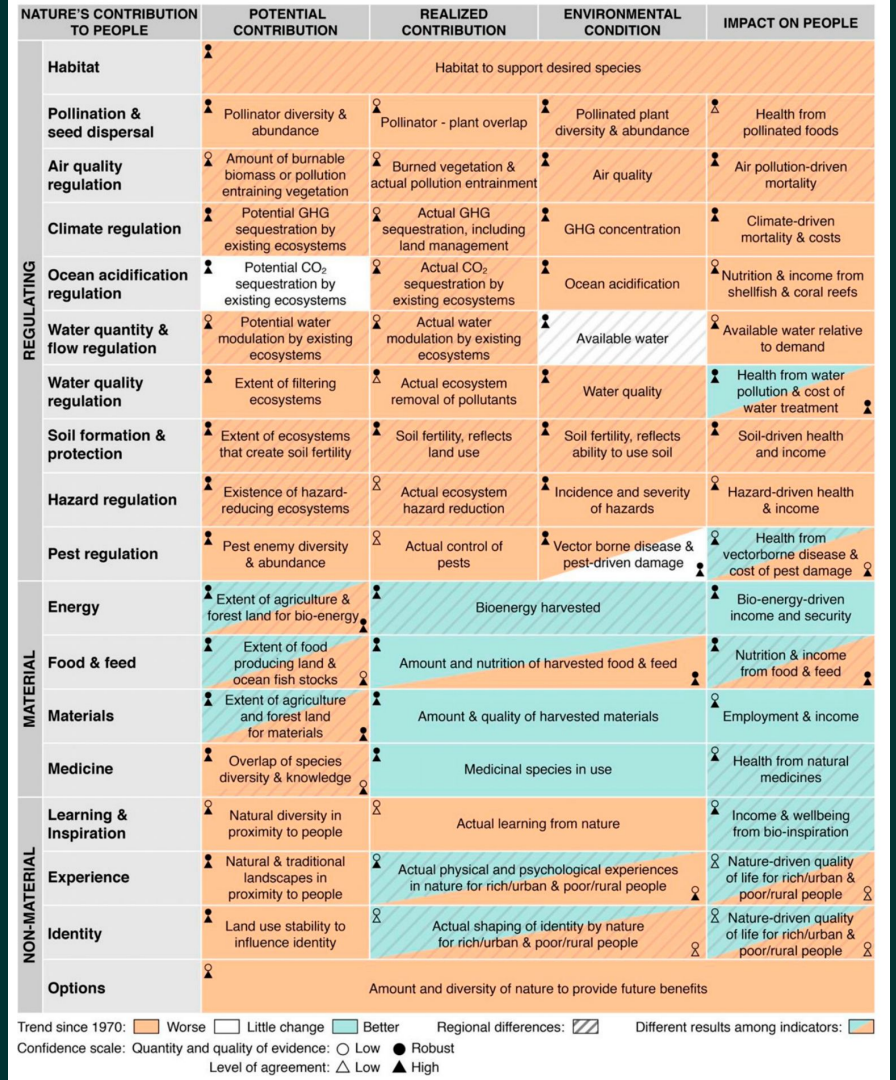
Mammals are compared in terms of biomass, measured in tonnes of carbon.



Note: Estimates of long-term biomass come with significant uncertainty, especially for wild mammals 100,000 and 10,000 years ago.

Sources: Barnosky (2008); Smil (2011); and Bar-On et al. (2018).

OurWorldinData.org — Research and data to make progress against the world's largest problems.



Pérdida en las contribuciones de la naturaleza a las personas

Brauman, Garibaldi, et *al.* (2020) *PNAS*

Changes in biodiversity vary in different parts of the world

The global Living Planet Index does not give us the entire picture – there are differences in abundance trends between regions, with the largest declines in tropical areas.

Valentina Marconi, Louise McRae and Robin Freeman (Zoological Society of London)

The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) divides the world into different geographic regions [39, 45]. This breakdown is designed to support the monitoring of progress towards the targets developed under the Convention on Biological Diversity.

The LPI trends presented here follow the IPBES regional classifications, with all terrestrial and freshwater populations within a country assigned to an IPBES region. The Americas are further subdivided into North America, and Latin America and the Caribbean (Mesoamerica, the Caribbean and South America combined).

Trends for each species group are weighted according to how many species are found in each IPBES region. More details about these regional trends and the other cuts of the Living Planet Index can be found in the *2022 Living Planet Report: Deep dive into the Living Planet Index*.

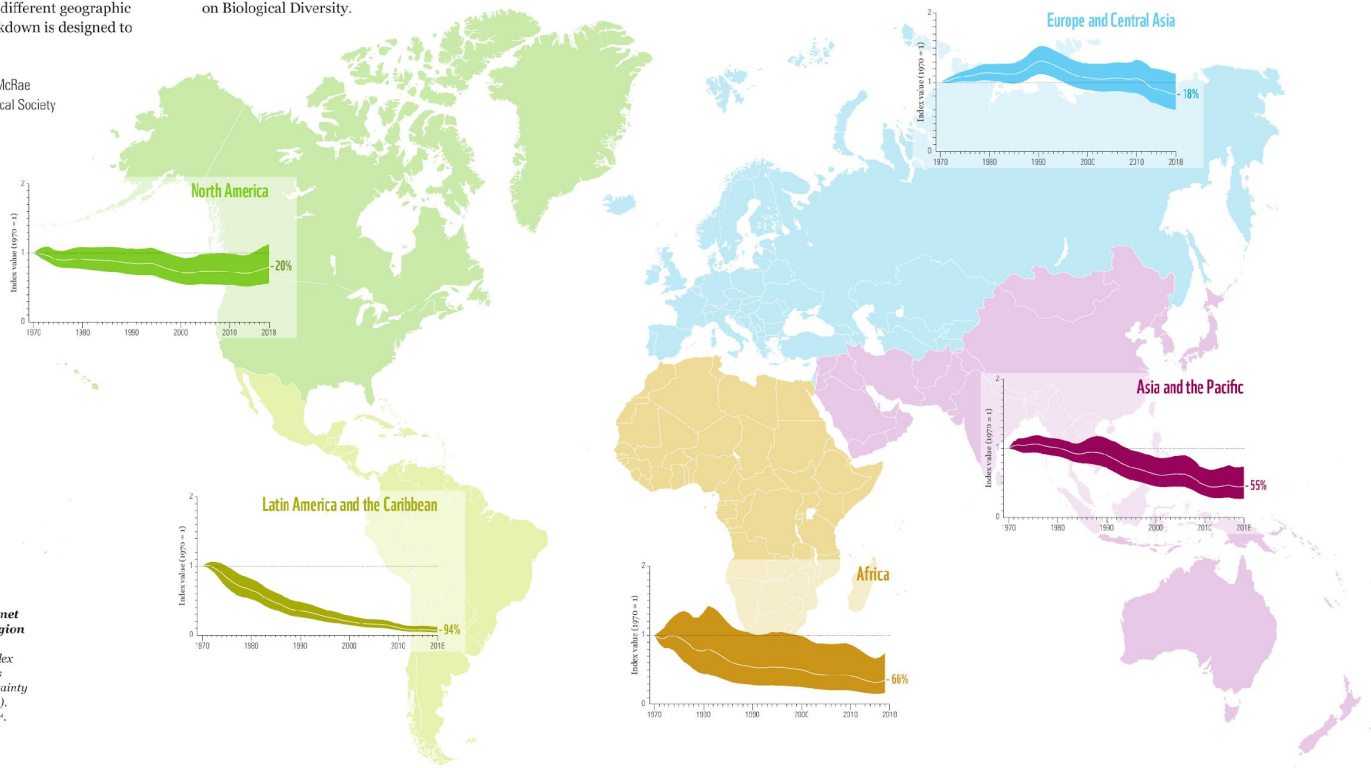


Figure 4: The Living Planet Index for each IPBES region (1970 to 2018)
The white line shows the index values and the shaded areas represent the statistical certainty surrounding the trend (95%). Source: WWF/ZSL (2022) [84].

WWF Living planet report (2022)

Argentina

Paisajes homogéneos

Díaz, *et al.*, Garibaldi, *et al.* (2019) *Science*

Paisajes multifuncionales

Garibaldi et *al.* (2014) *Front. Ecol. Environ.*

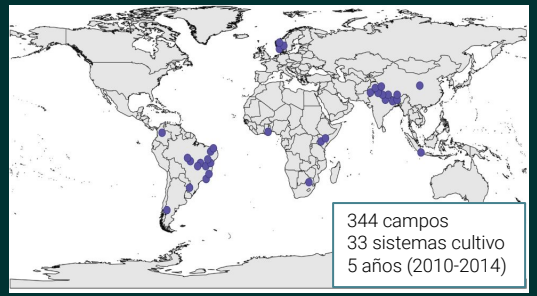
Transiciones productivas sostenibles

- Eficiencia
- Reemplazo
- Rediseño

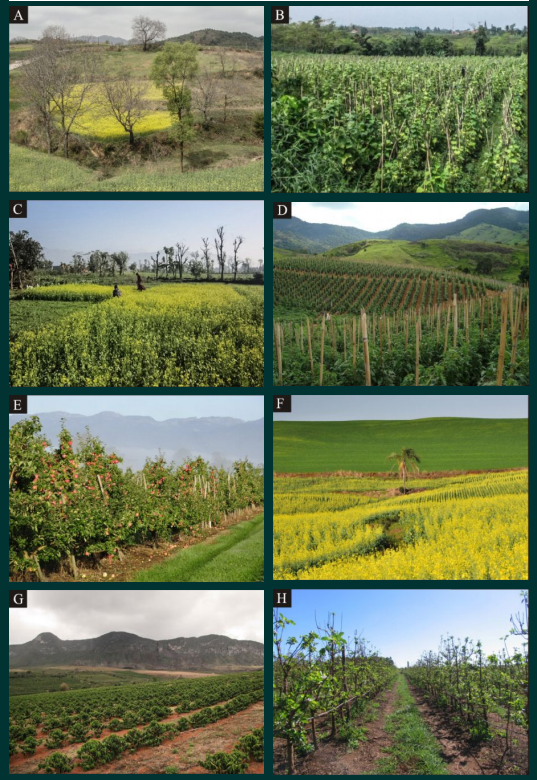
Master plan – Codesarrollo

Garibaldi *et al.* (2023) *J. Appl. Ecol*

Paisajes multifuncionales



Rendimiento
+ 24 %

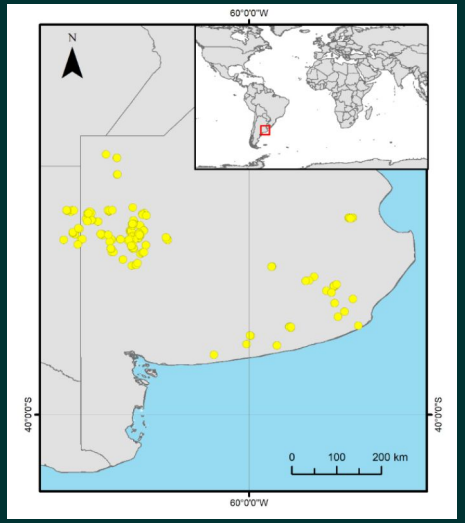


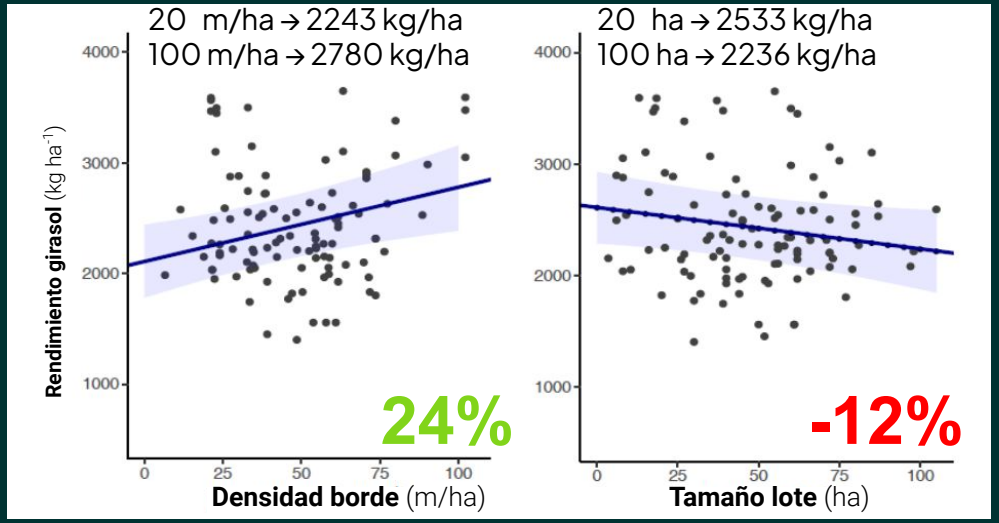
Beneficios

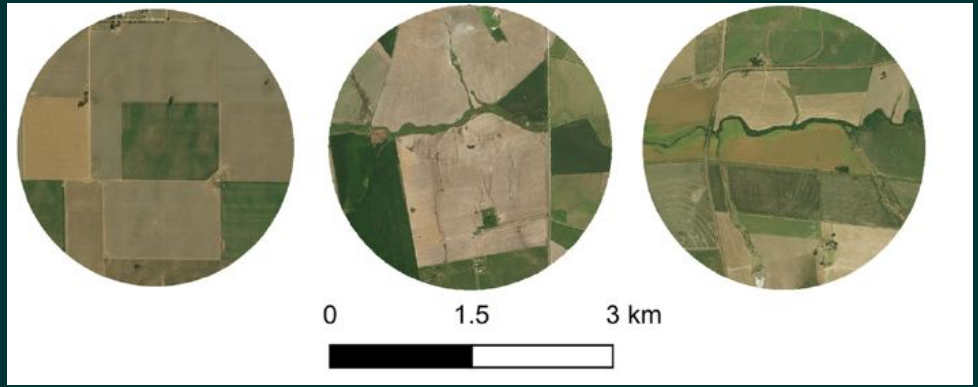
- Productividad, estabilidad y calidad de los cultivos.
- Polinización de cultivos
- Menos costos (malezas, enfermedades, plagas)
- Múltiples dimensiones

Garibaldi *et al.* (2016) *Science*

Productividad, estabilidad y calidad de los cultivos





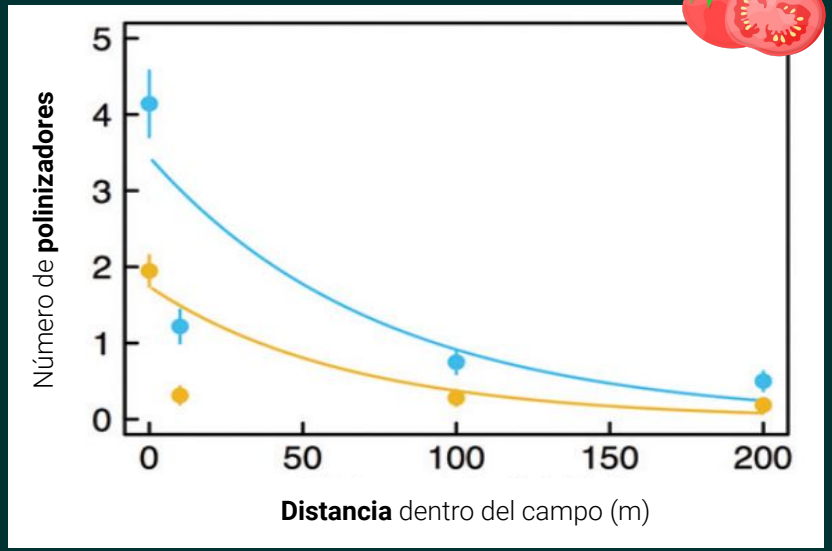


Goldenberg, *et al.*, Garibaldi (2022) *Ecol. Austral*

Polinización de cultivos

Foto: K Ullman

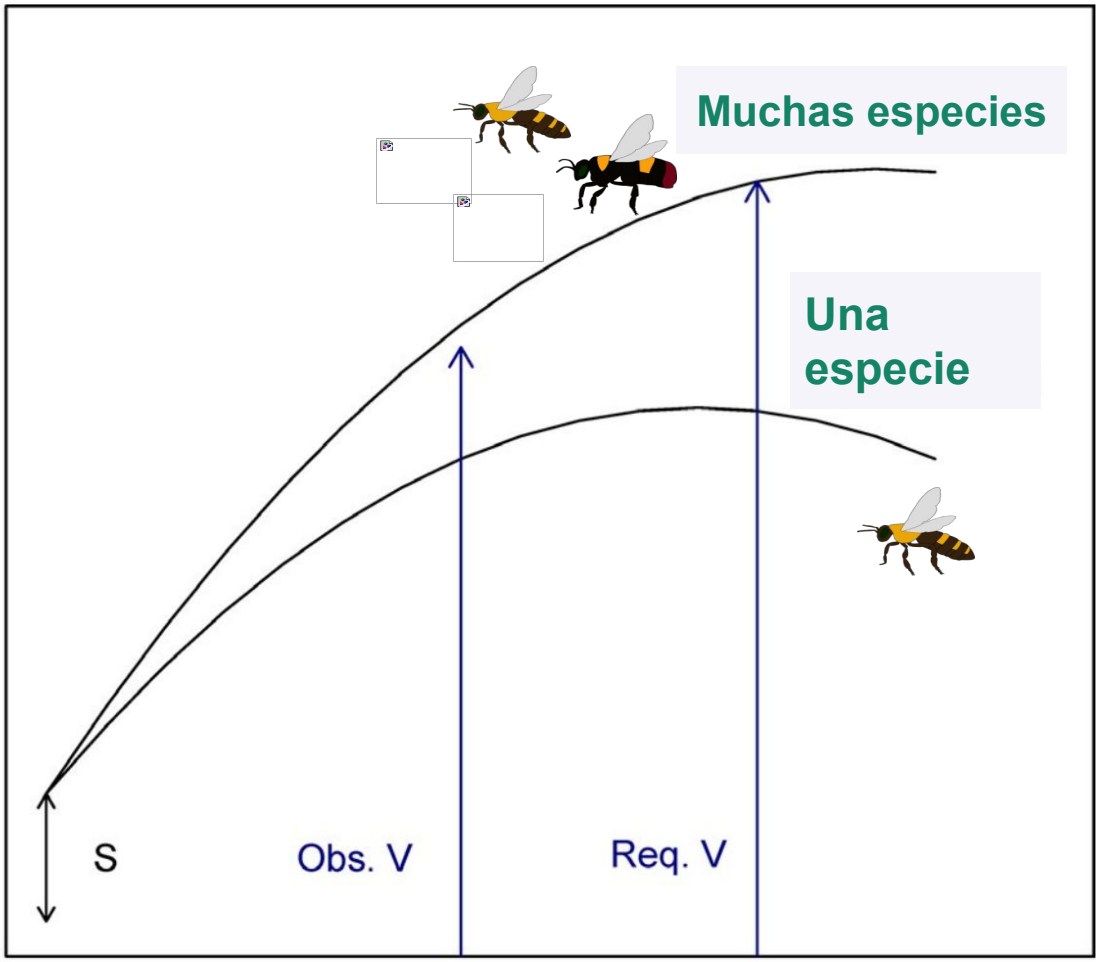
Foto: L M'Gonigle



Garibaldi et *al.* (2014) *Front. Ecol. Environ.*

Polinización de cultivos

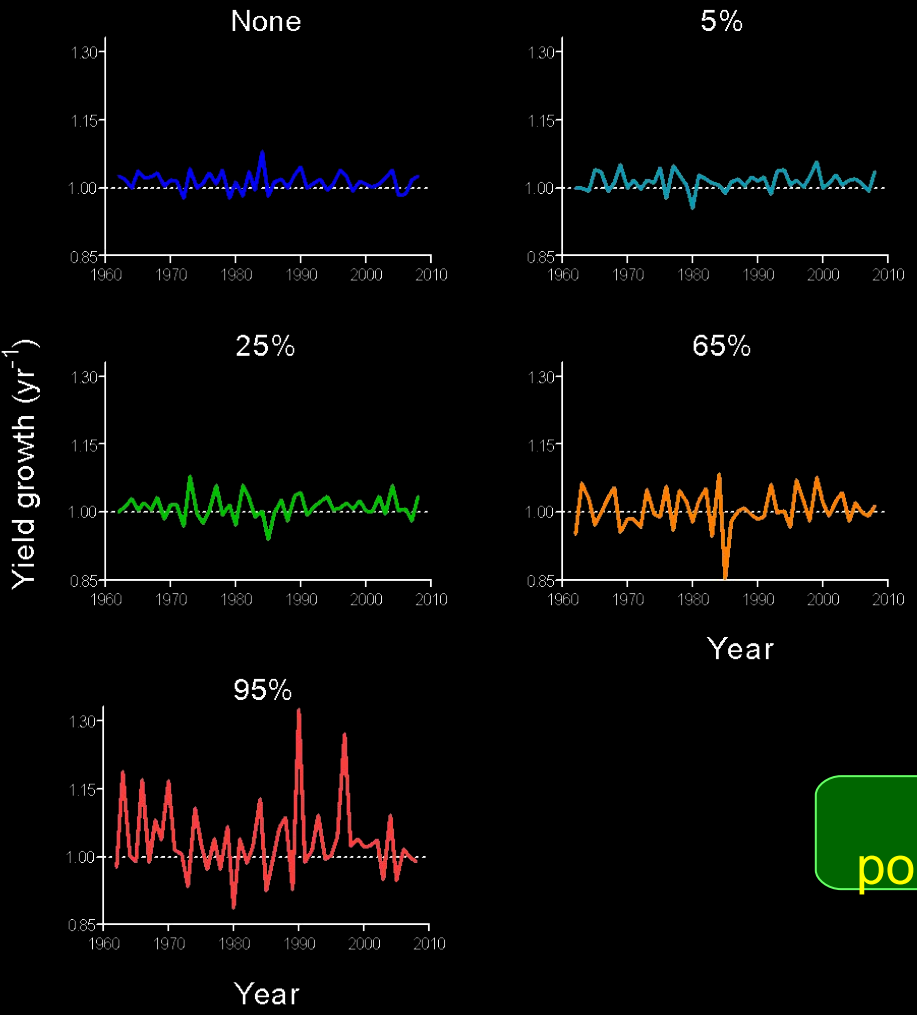
Polinización de cultivos



Garibaldi *et al.* (2013) *Science*
Garibaldi *et al.* (2015) *J. Appl. Ecol*
Garibaldi *et al.* (2020) *J. Appl. Ecol*

Polinización de cultivos

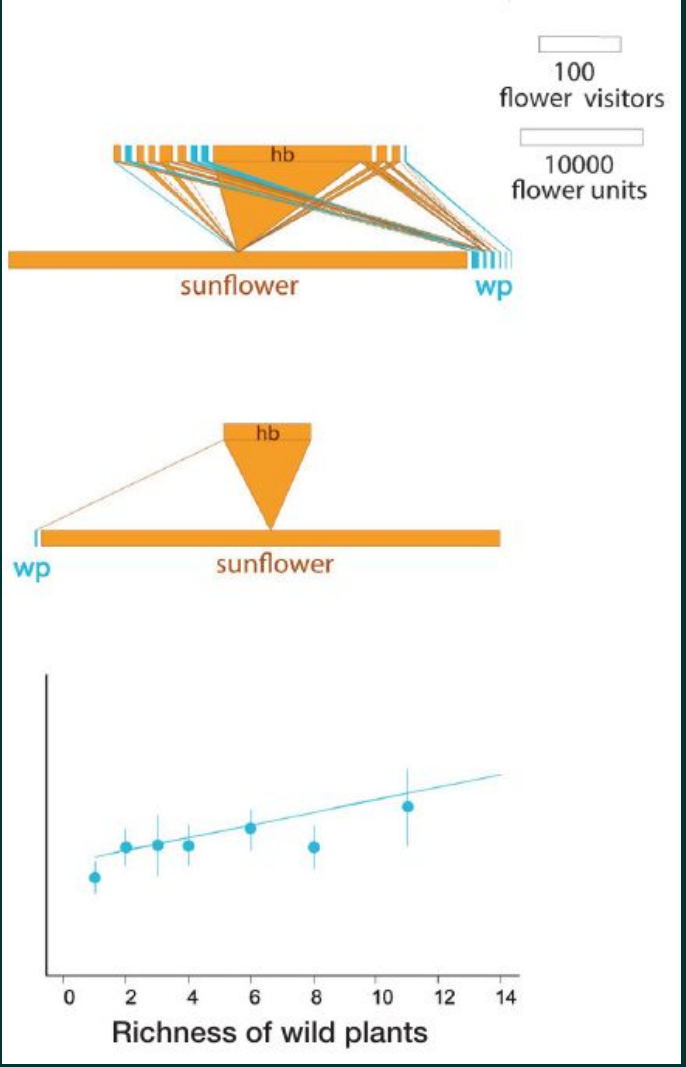
Garibaldi *et al.* (2021) *TREE*



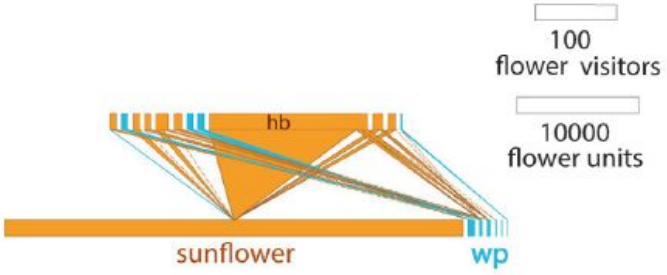
Déficit polinizadores

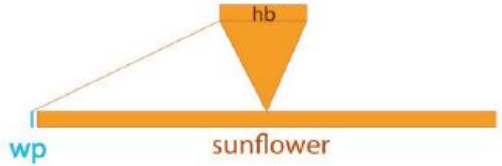
Garibaldi *et al*. 2011 *PNAS*

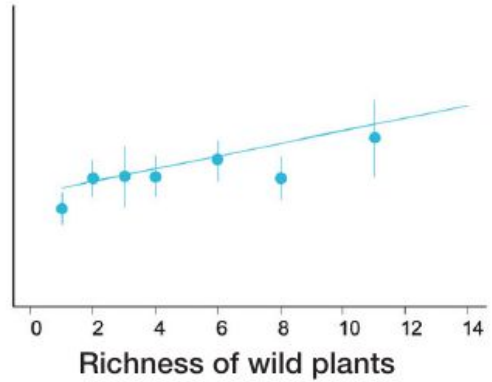
Polinización de cultivos



Garibaldi *et al.* (2014) *Front Ecol Environ*

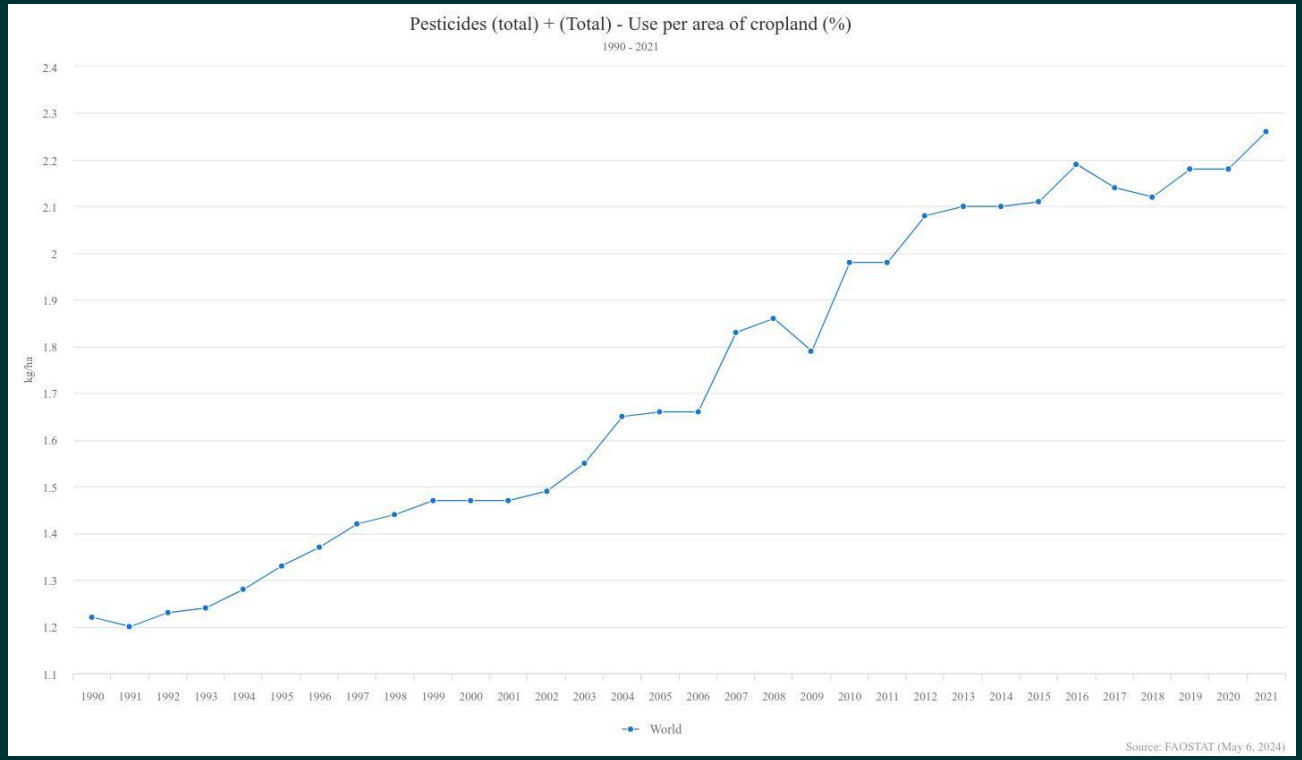




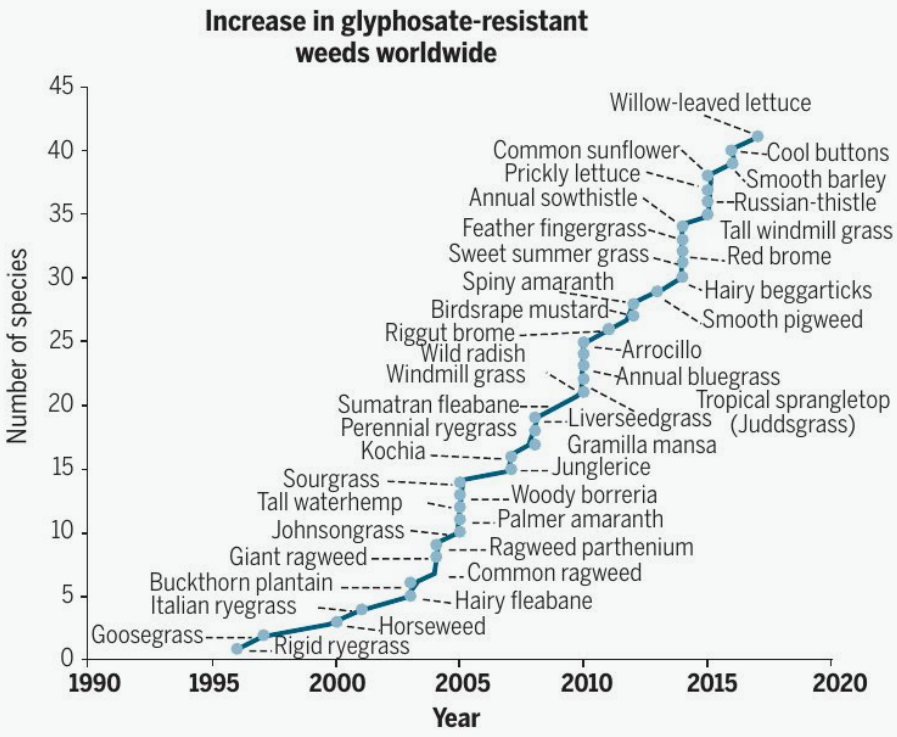


Chicharrita del maíz: ya imposible de controlar en la actual campaña, ¿cómo frenarla en la próxima?

Un experto de la Facultad de Ciencias Agrarias de la Universidad Nacional de Lomas de Zamora brinda sus recomendaciones para que el ciclo 2024/25 no se vea perjudicado también por esta plaga.


Pesticides (total) + (Total) - Use per area of cropland (%)
1990 - 2021
kg/ha
2.4
2.3
2.2
2.1
2
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021
World
Source: FAOSTAT (May 6, 2024)

FAOSTAT



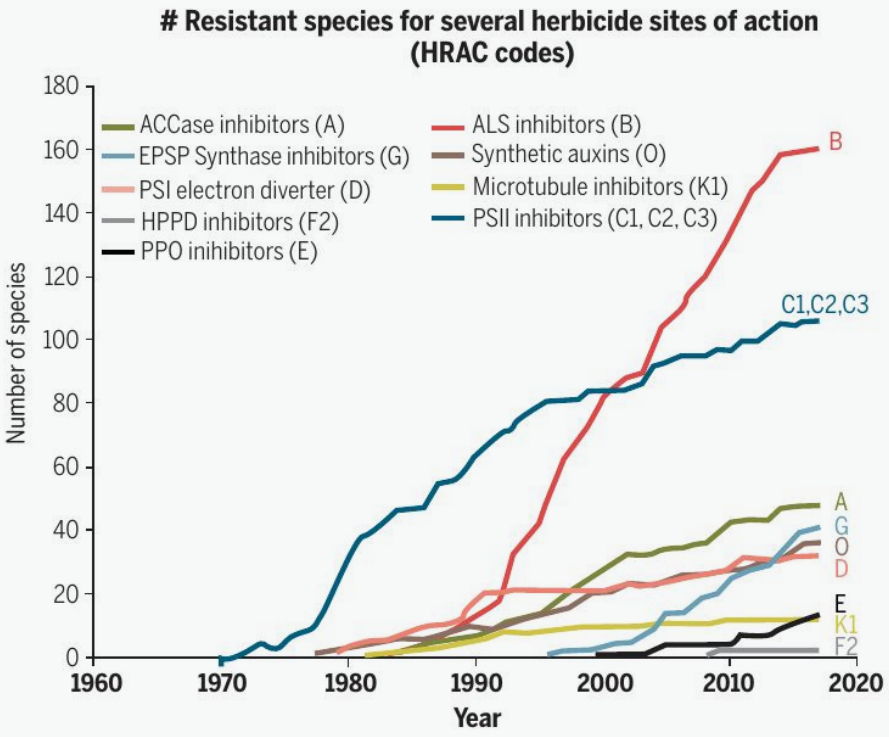
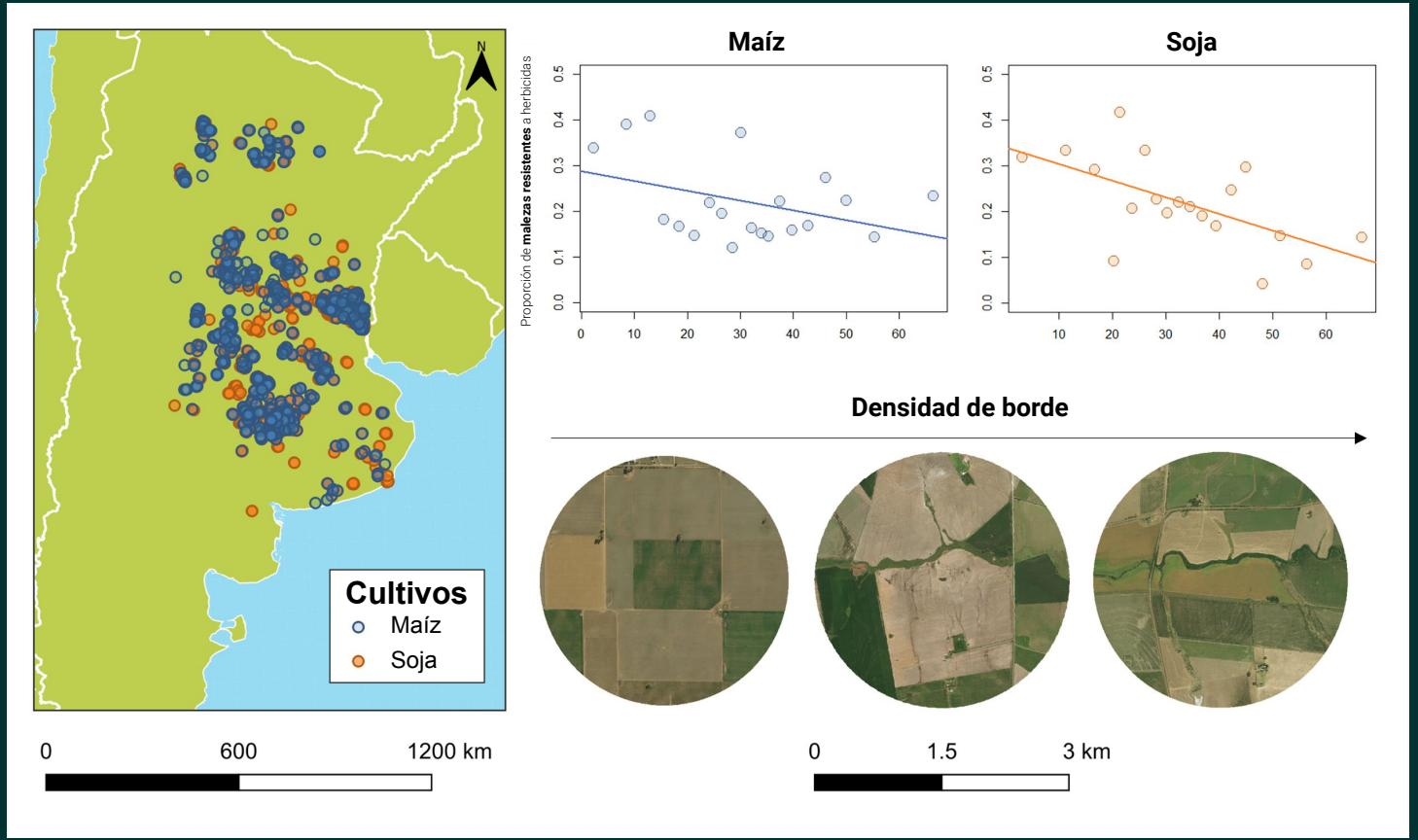


Fig. 1. Weed species with resistance to herbicides. (**Left**) Cumulative number of weed species with resistance to glyphosate. (**Right**) Cumulative number of weed species with resistance to herbicides in the major mechanism of action groupings.

Gould *et al.* (2018) *Science*

Menos costos



Malezas 3 veces menos resistentes

Garibaldi *et al.* (2023) *Agric. Ecosyst. Environ.*

Múltiples dimensiones

Garibaldi et *al.* (2022) *Proc. Royal Soc. B*

- Marco Mundial de Biodiversidad Kunming-Montreal para el 2030
- Emisiones netas cero para el 2050

¡Gracias!

Campo El Médano, La Pampa

Foto: Alejo Ortiz


¿Preguntas?