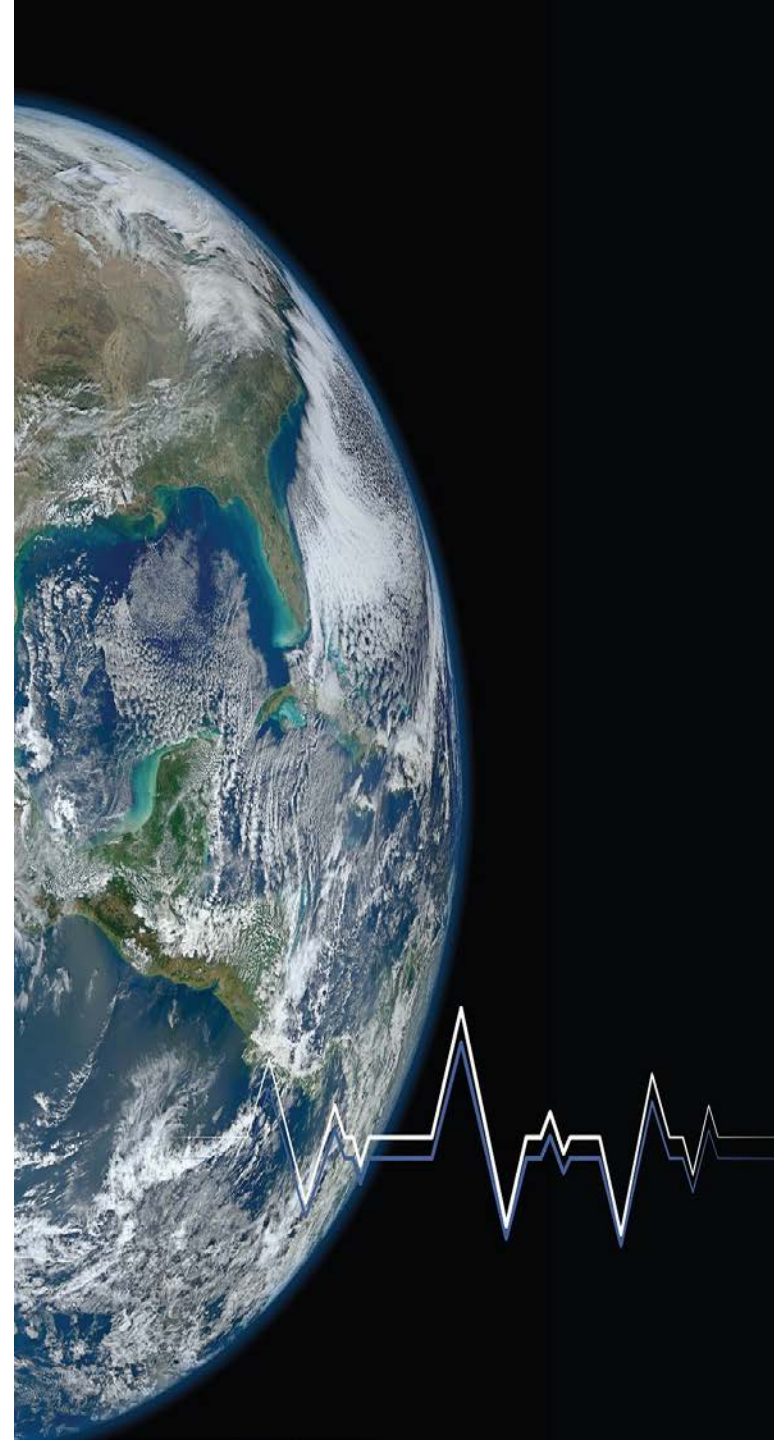


World Scientists' Warning to Humanity: A Second Notice

Bill Ripple



Four Parts to my talk

- 1) The making of the Scientists' Warning Paper.
- 2) Our environmental findings.
- 3) Our suggestions to humanity.
- 4) The response to our paper.

Part 1) The making of the scientists' warning

February of 2017, I was feeling concerned about global environment



Especially concerned about :

Trends in climate data

Extreme weather events





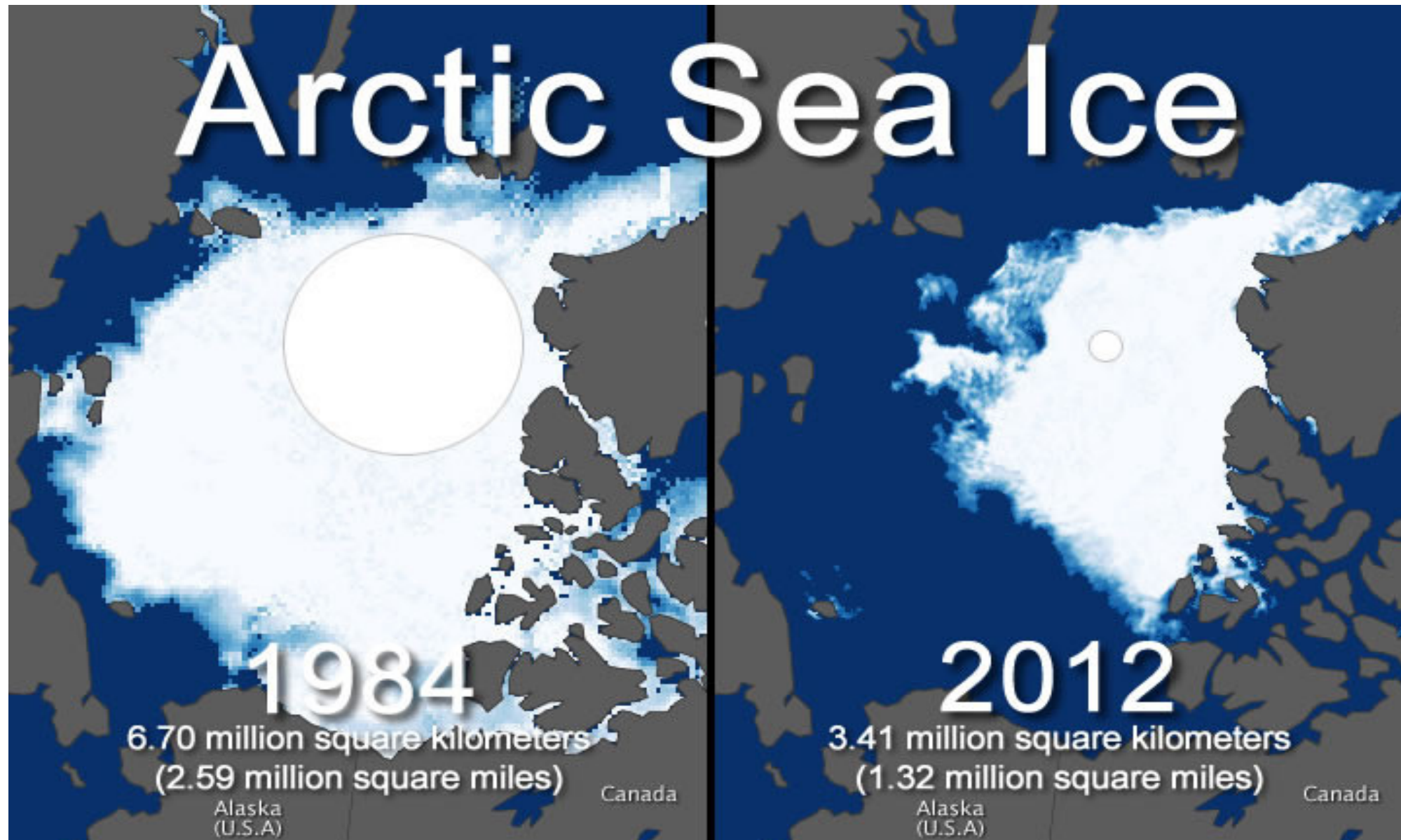




Droughts and agriculture



Summer minimum sea ice in 1984 & 2012



1992
(First) World Scientists' Warning to
Humanity



**Union of
Concerned
Scientists**

Citizens and Scientists for Environmental Solutions

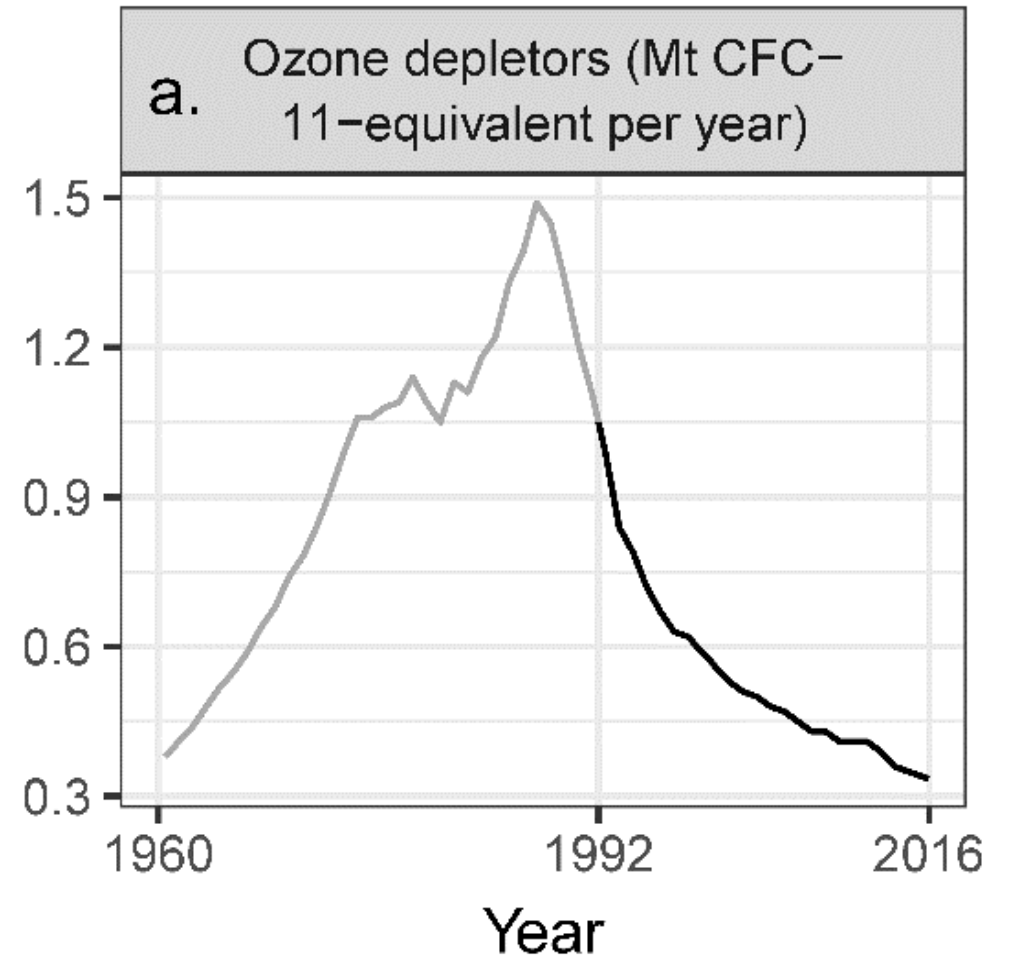
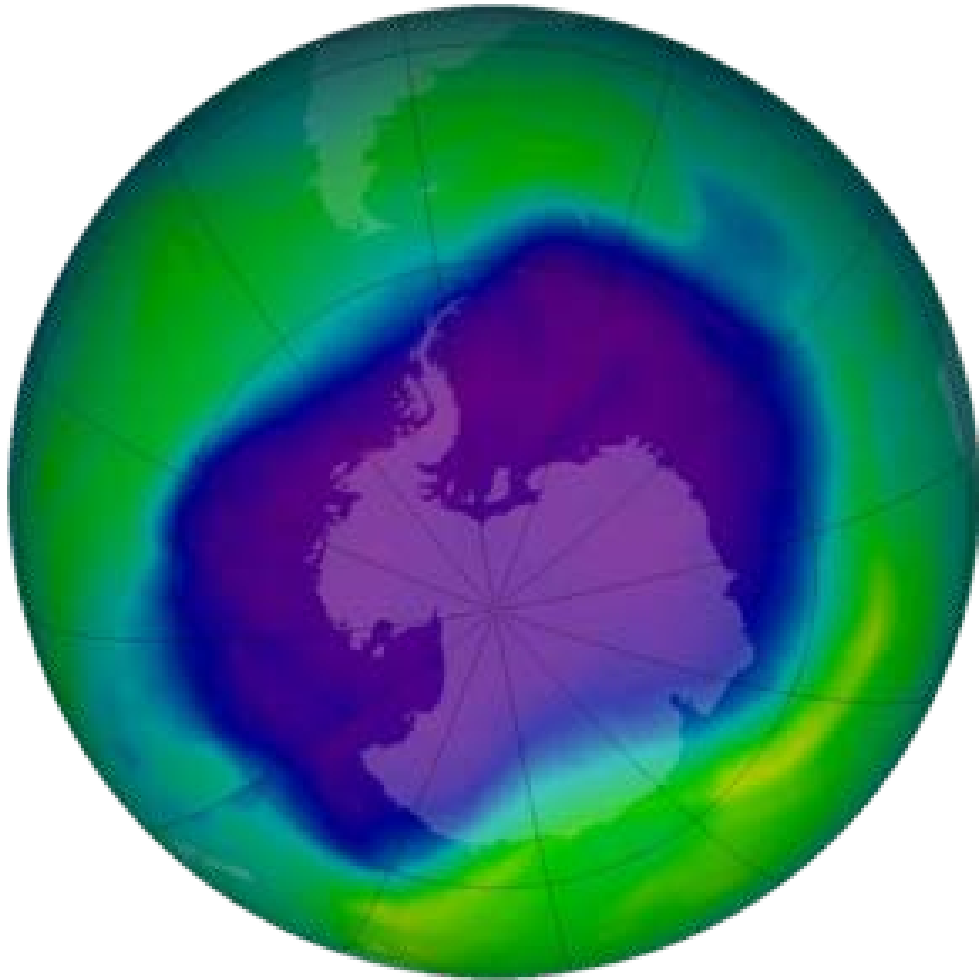
- “Human beings and the natural world are on a collision course”.
- “Human activities inflict harsh and often irreversible damage on the environment . . .”.
- “Fundamental changes are urgent. . .”.

- 25 years since 1992 warning
- Global environmental datasets over time
- Write a letter to humanity showing change

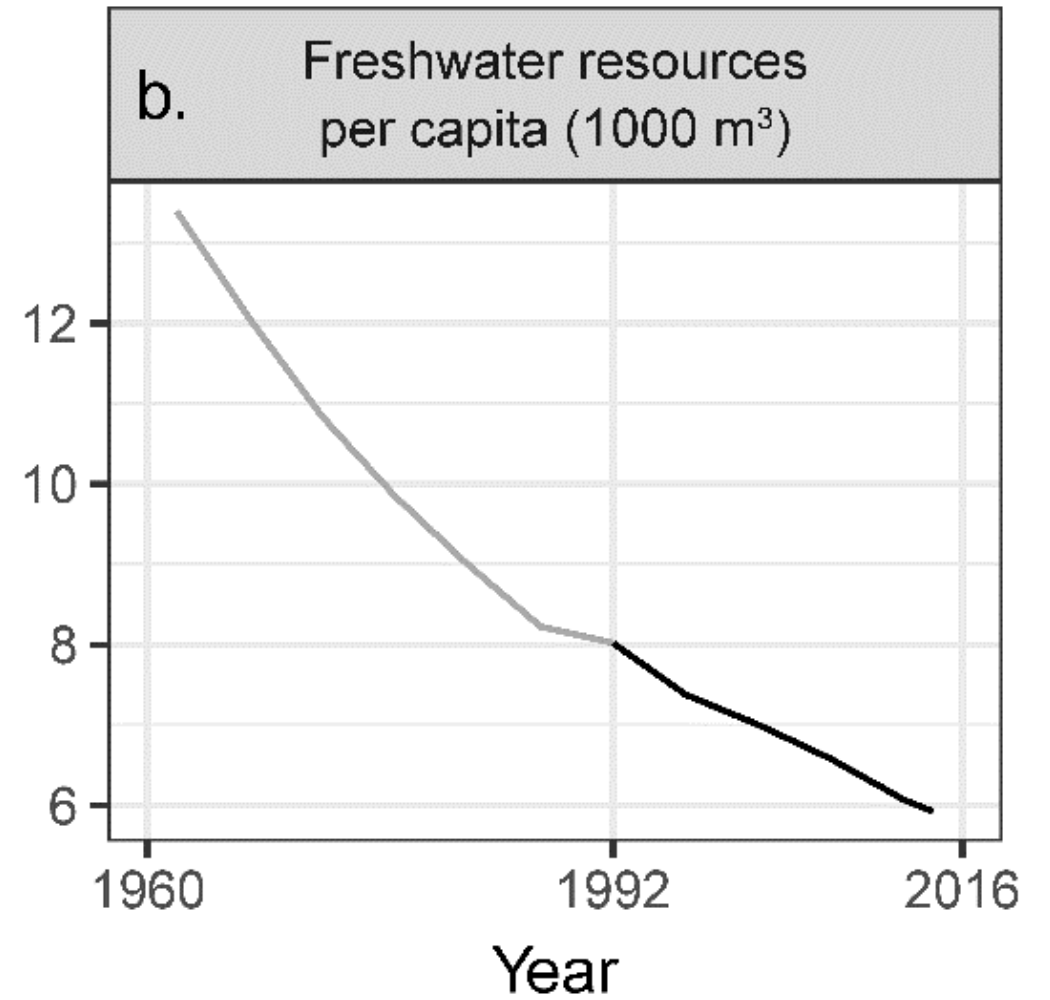


Part 2) Our environmental findings

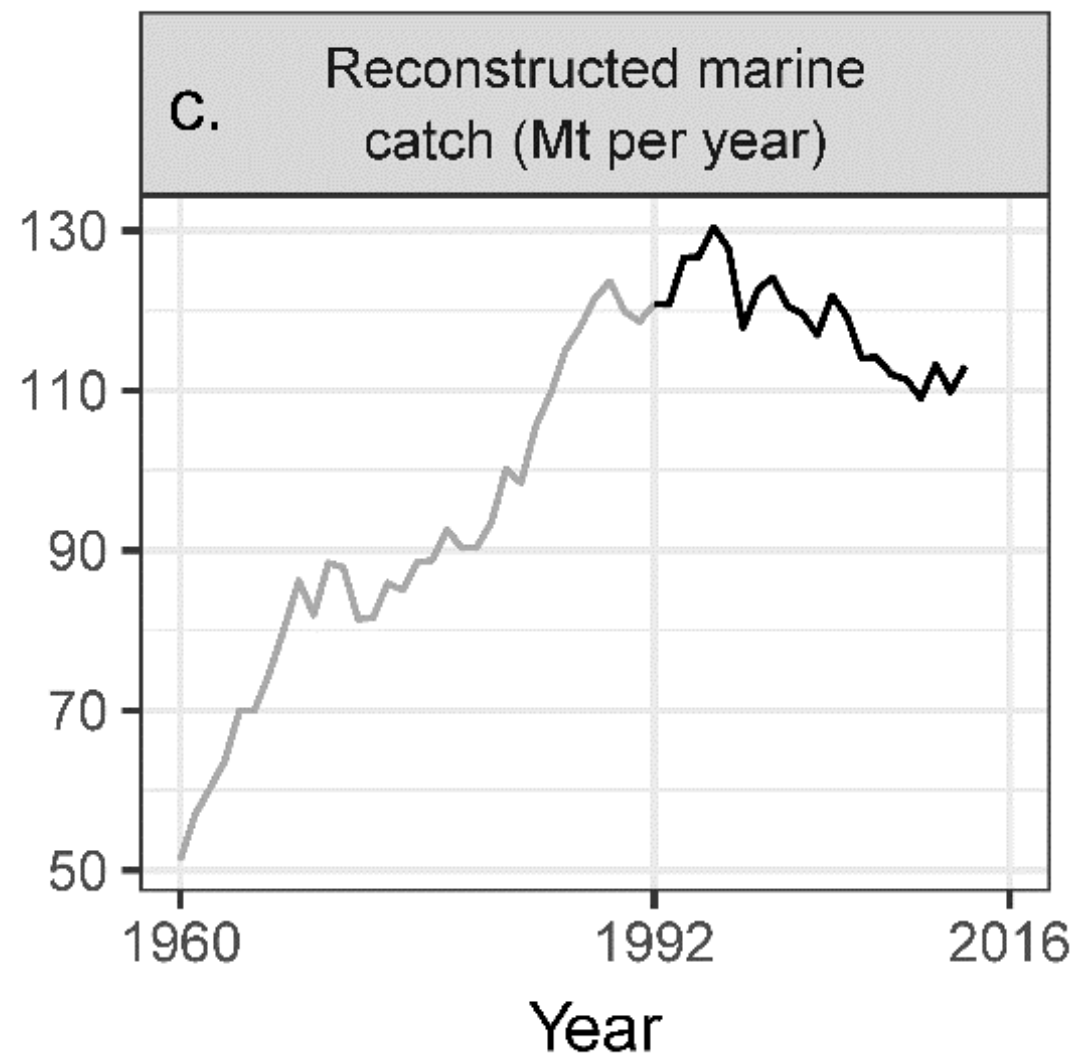
The Good News



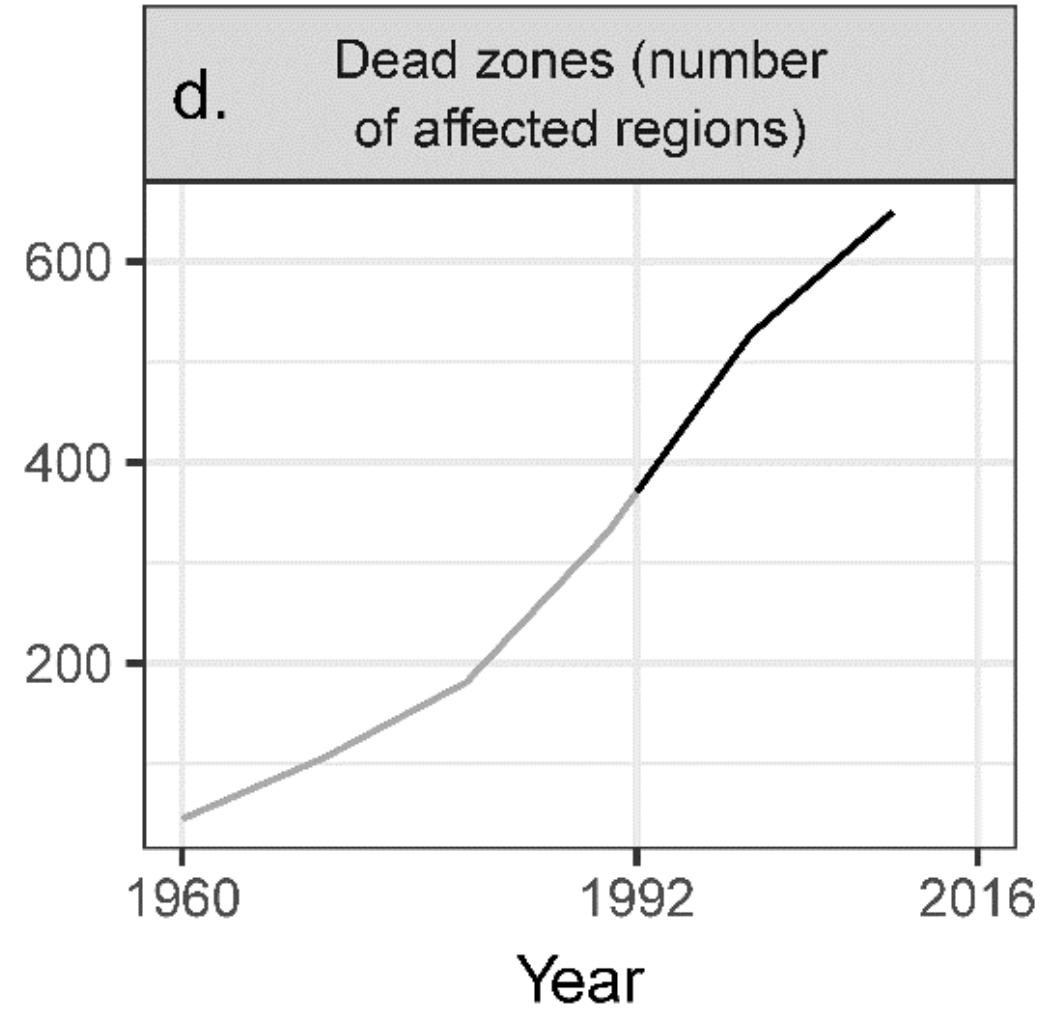
68% decrease



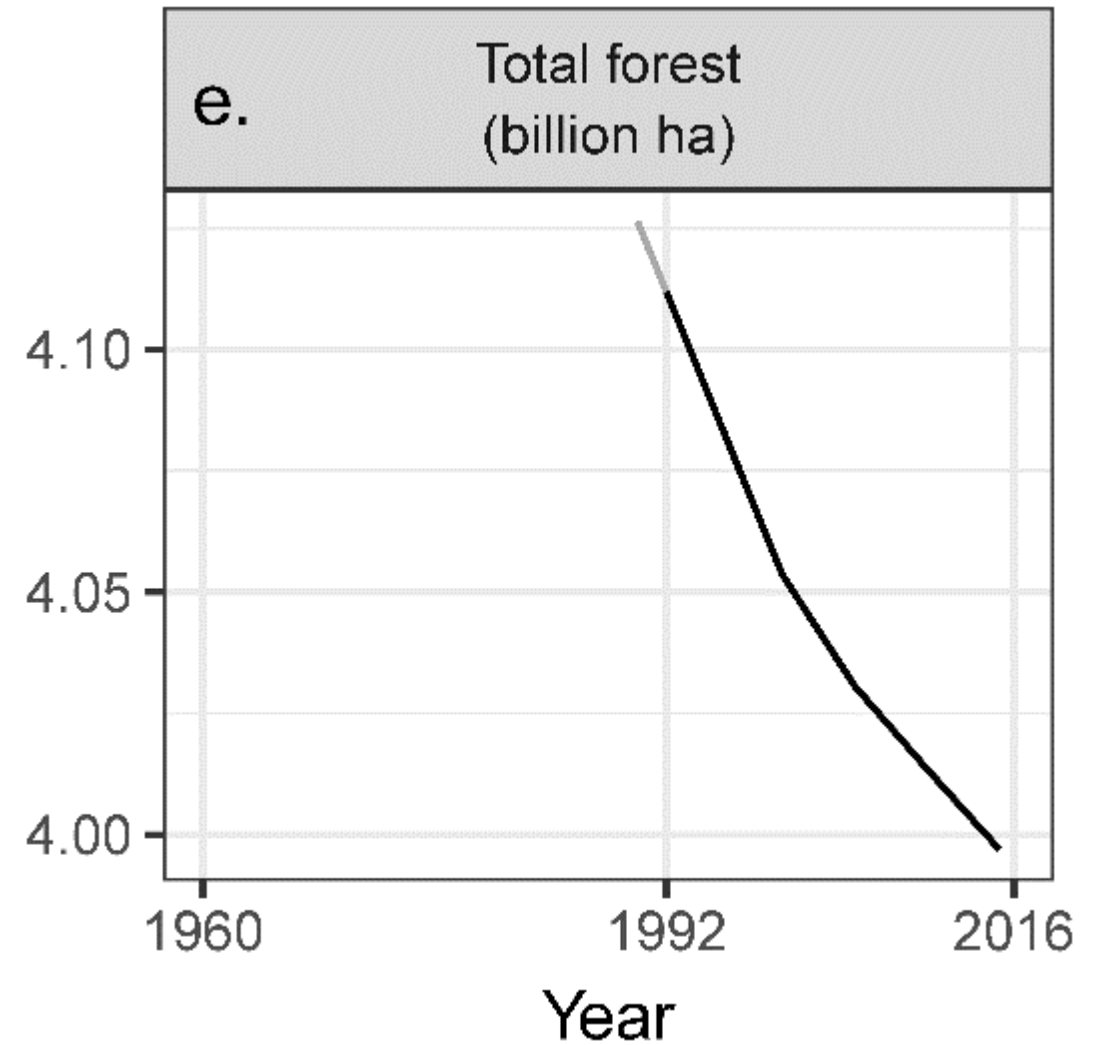
26% decrease



6% decrease



75% increase

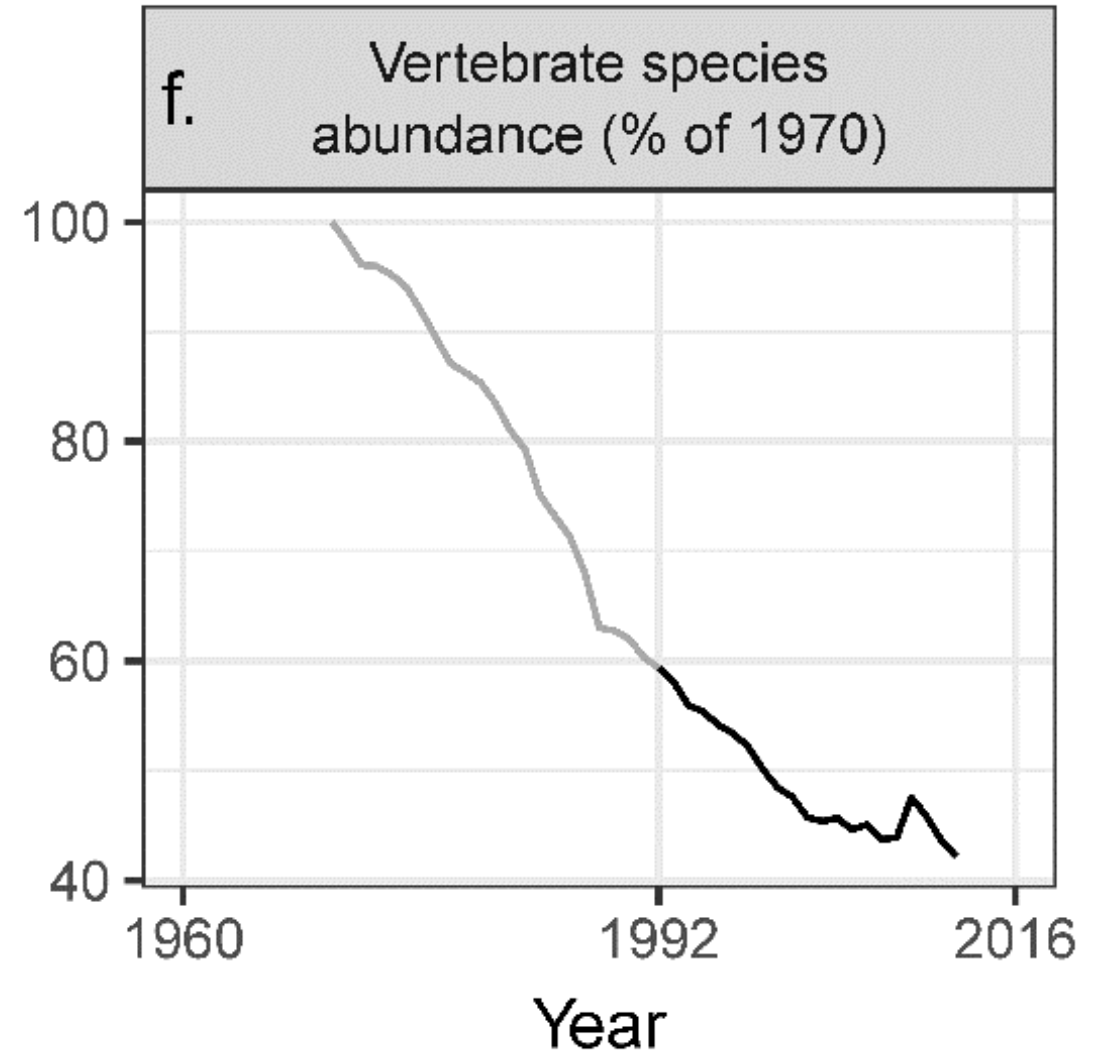


2.8 % decrease

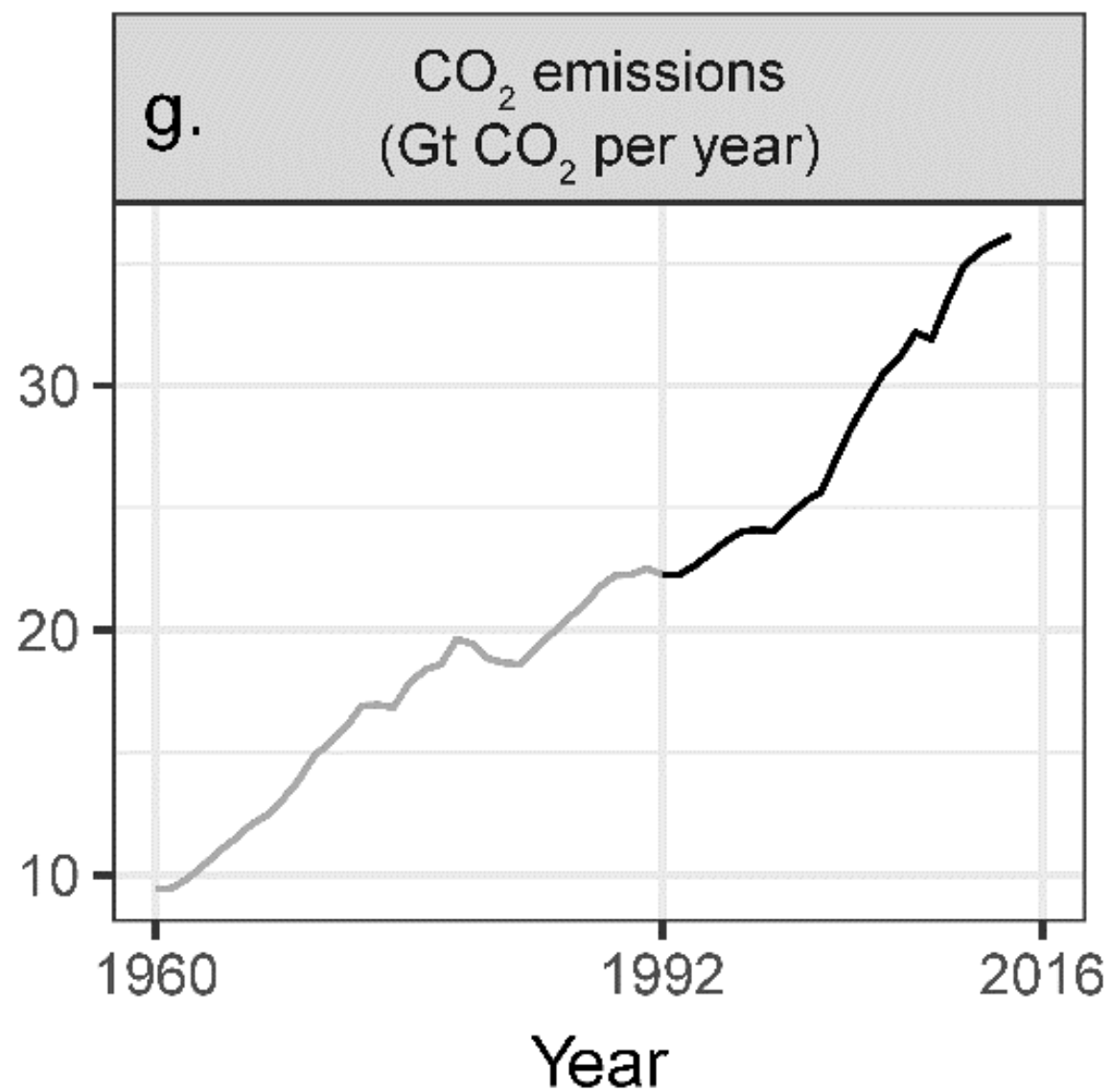
129,000,000 hectares lost (size of South Africa)



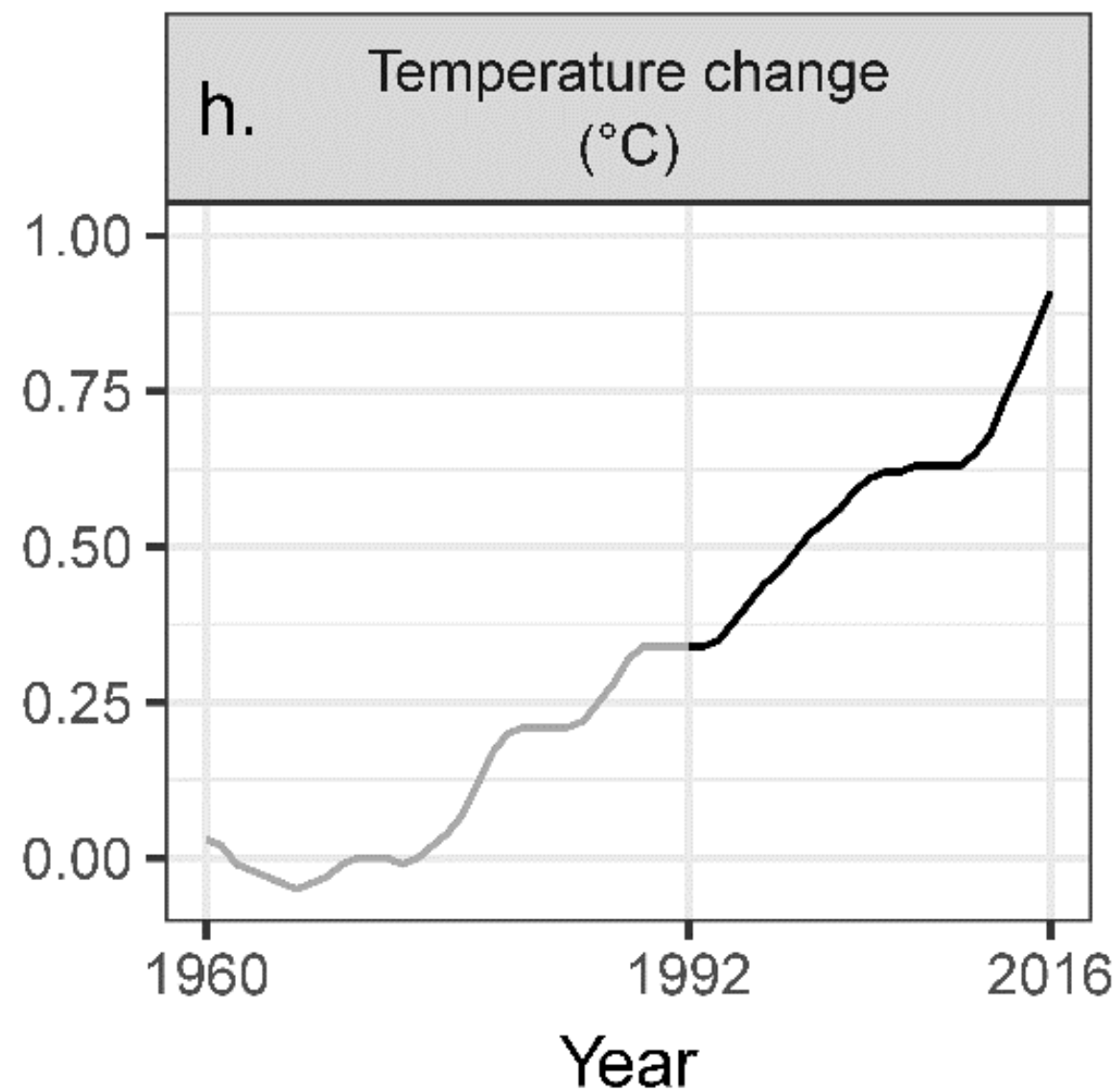
Abundance of wildlife

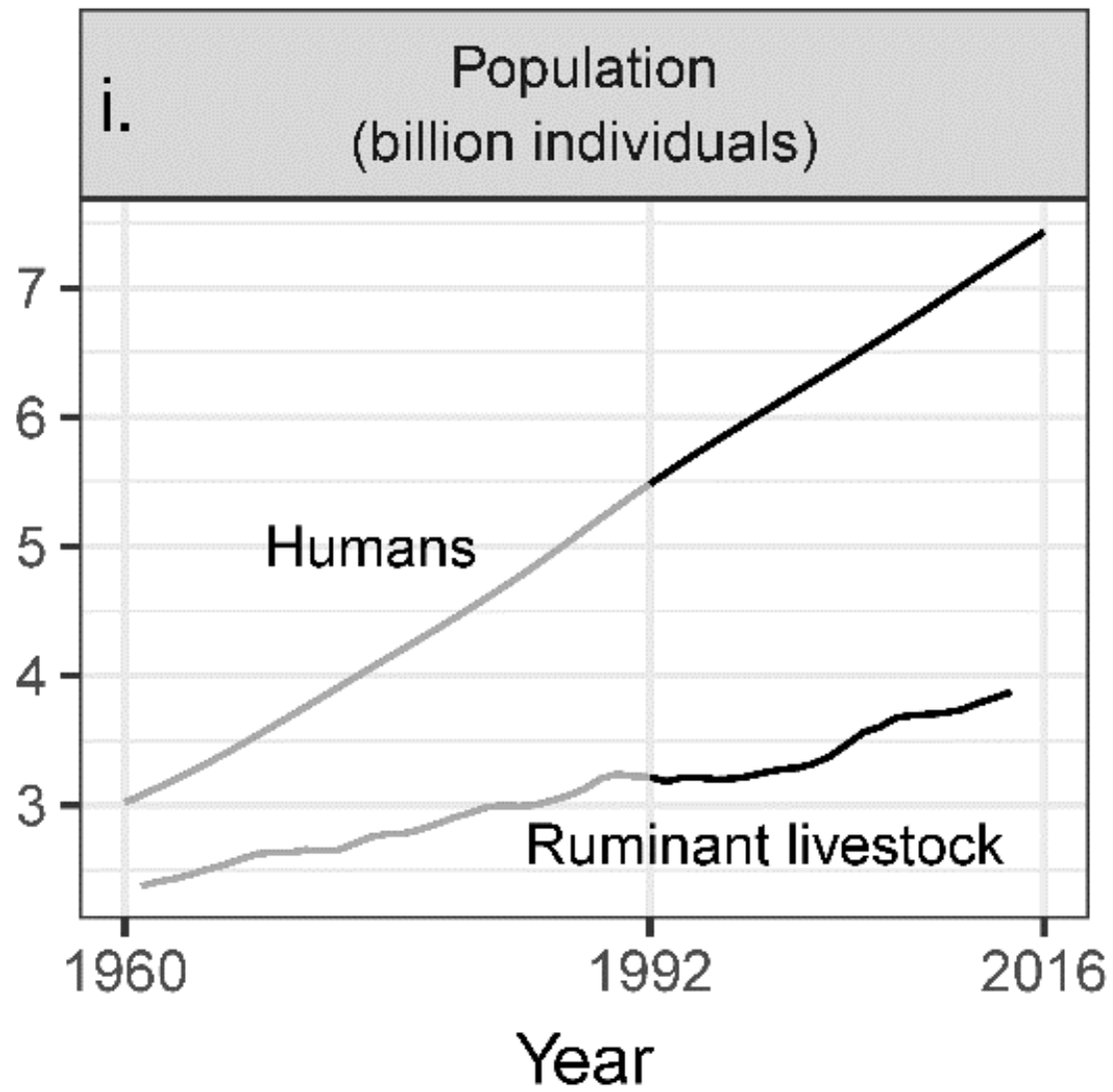


29% decrease



62% increase





Humans: 35% increase

Ruminants: 20% increase

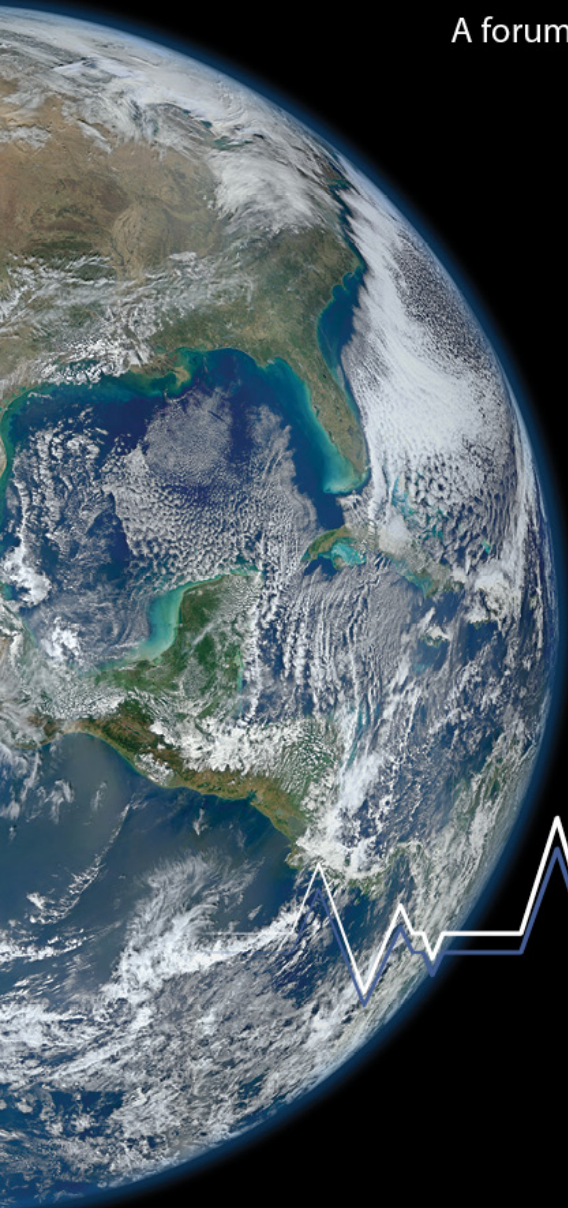
BioScience

A forum for Integrating the Life Sciences

December 2017
Vol. 67 No. 11

World Scientists' Warning to Humanity:

A Second Notice



Article published on Nov. 13, 2017

Cover image by Oliver Day, OSU

Part 3) Our suggestions to humanity (mostly directed to world's governments)



Preserving Nature

- 1) creating nature reserves around the world;
- 2) halting the conversion of forests, grasslands, and other native habitats;
- 3) restoring native plant communities, particularly forests;
- 4) curbing the poaching crisis;
- 5) rewilding regions with native species



Food

6) reducing food waste through education and better infrastructure; (One third of all food is wasted).

7) promoting dietary shifts towards mostly plant-based foods;



Fertility and Education

- 8) reducing fertility rates through voluntary family-planning;
- 9) increasing outdoor nature education for children;



The Economy



10) divesting of monetary investments to encourage positive environmental change;

11) promoting renewable energy sources, while phasing out subsidies to fossil fuels;

12) revising our economy to take into account the real costs which consumption patterns impose on our environment;



Human Population Size

13) estimating a scientifically defensible, sustainable human population size for the long term.

Part 4) The response to the paper

We invited scientists to sign our paper

- I sent it to 40 scientists & we also sent 1 tweet
- 1,200 within 48 hours
- 15,364 from 184 countries for publication
- 5,000 more since publication
- 20,000 total scientists
- 183 OSU scientists

- Hundreds of emails
- Invitations- meetings & presentations
- Israeli Parliament and British Columbia Legislature
- Books, poetry, art, a song (Goodbye Beautiful World)
- Many Ideas for saving the world
- Many offers to help
- Money
- Satire

Story Covered by more than 300 News Outlets



16,000 scientists sign dire warning to humanity over health of planet



By [Jen Christensen](#), CNN

🕒 Updated 8:50 AM ET, Wed November 15, 2017



Speaking of Science

Thousands of scientists issue bleak 'second notice' to humanity

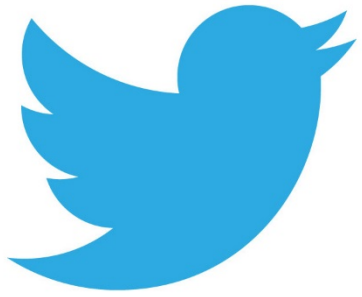
By [Sarah Kaplan](#) November 13 📧

Why dozens of Mass. scientists signed the 'Warning to Humanity' letter



The Washington Post
Democracy Dies in Darkness

The Boston Globe



More than 9,000 tweets reaching up to 15,000,000 followers



More Than 100 YouTube videos



Thousands of scientists issue bleak 'second notice' to humanity

1 month ago
youtube.com



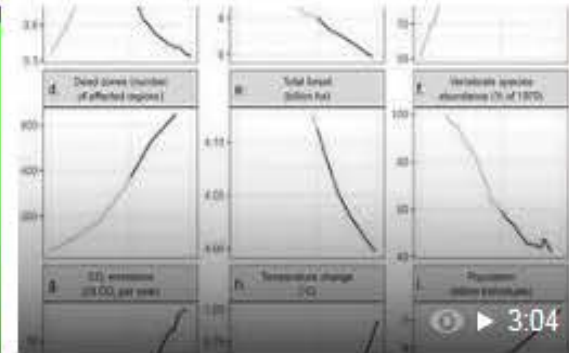
World scientists' warning to humanity: a second notice

1 month ago
youtube.com



15,000 scientists give 'second notice' warning to humanity

1 month ago
youtube.com



World Scientists' Warning to Humanity: A Second Notice

1 month ago
youtube.com



World Scientists' Warning to Humanity: A Second Notice

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Thousands of scientists issue bleak 'second notice' to humanity

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Thousands of scientists issue bleak 'second notice' to humanity

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Breaking News: Thousands of scientists issue bleak 'second notice' to humanity

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'soon it will be too late': scientists issue dire 'second notice' to humanity

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Thousands of scientists issue bleak 'second notice' to humanity

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youtube.com

World Scientists' Warning to Humanity: A Second Notice

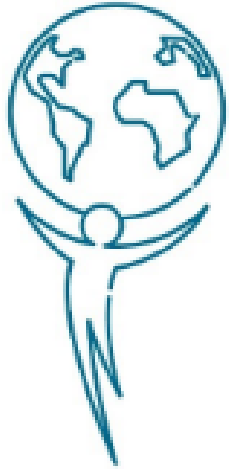
Overview of attention for article published in BioScience, November 2017



ALL RESEARCH OUTPUTS

#7

of 9,690,494 outputs



Alliance of World Scientists

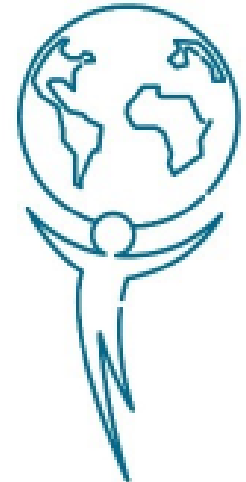


Alliance to do follow-up work on global environmental issues.

About 14,000 scientists signed up with the Alliance.



Alliance of World Scientists



Translated warning paper into 21 languages

[Catalan](#)

[Dutch](#)

[Simplified Chinese](#)

[Traditional Chinese](#)

[French](#)

[German](#)

[Hebrew](#)

[Hindi](#)

[Hungarian](#)

[Indonesian](#)

[Italian](#)

[Japanese](#)

[Korean](#)

[Polish](#)

[Portuguese](#)

[Russian](#)

[Serbian](#)

[Spanish](#)

[Swedish](#)

[Telugu](#)

[Turkish](#)

For more info., visit:

scientistswarning.forestry.oregonstate.edu

We are still accepting signatures from scientists

Thank you



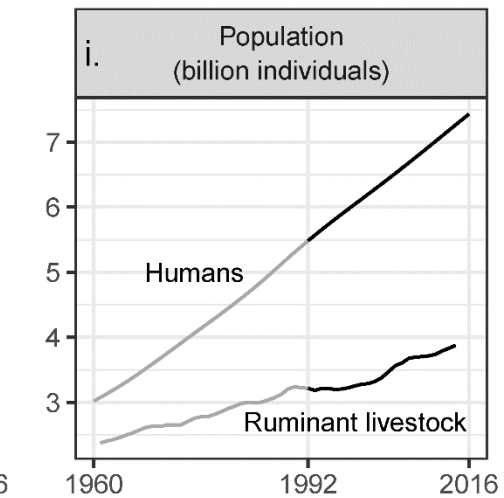
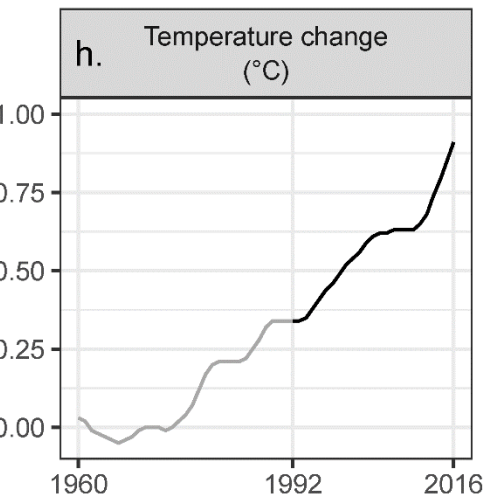
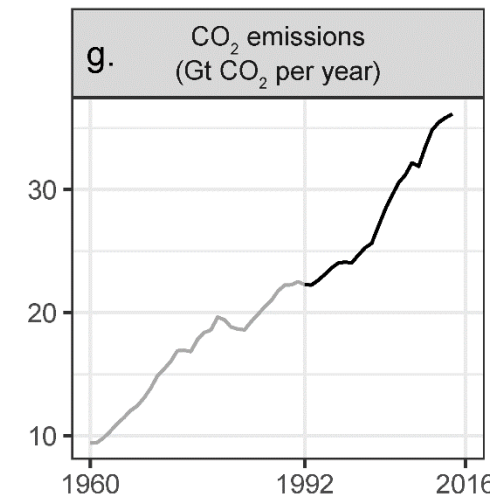
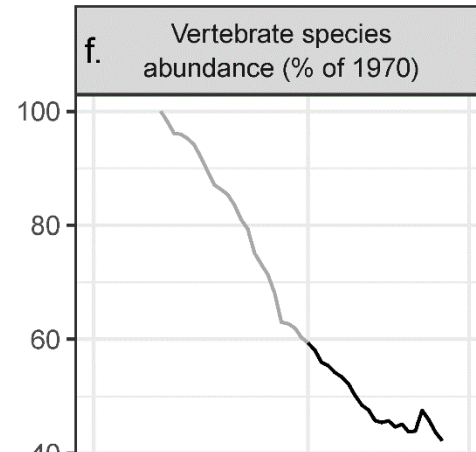
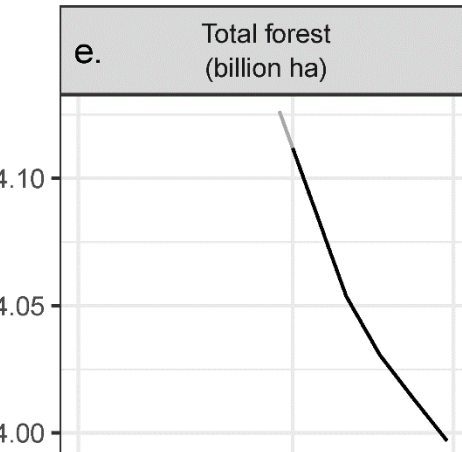
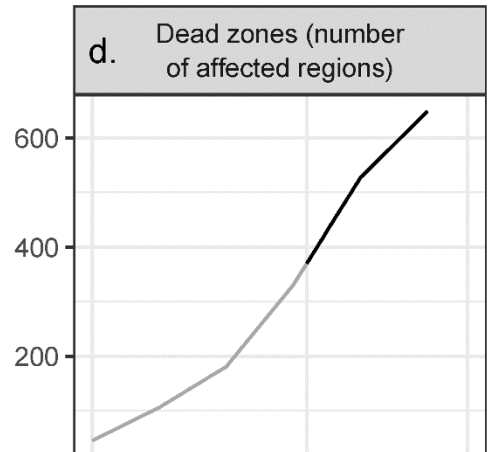
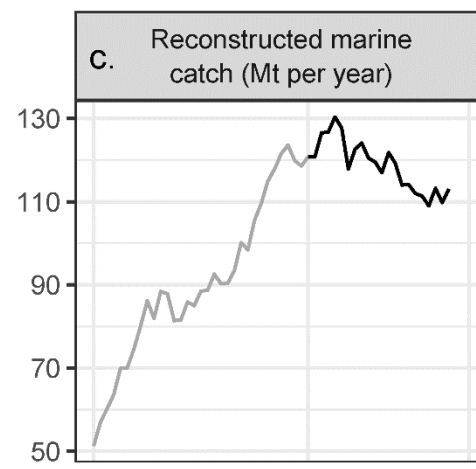
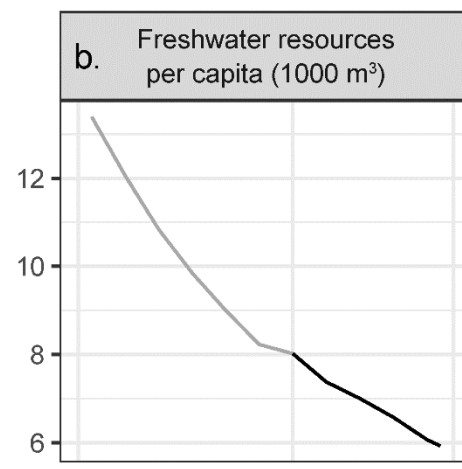
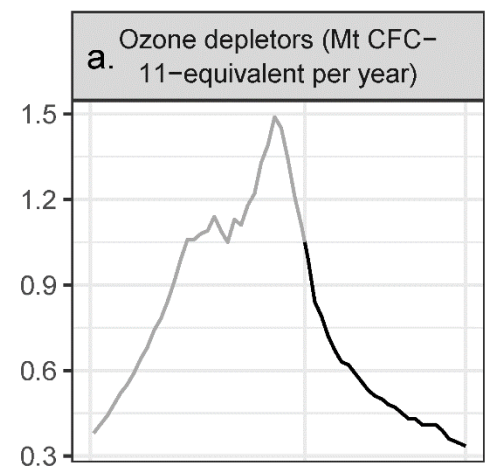
RESEARCH CONCLUDES:

**WE ARE
DESTROYING
EARTH.**

COULD YOU KINDLY
REPHRASE THAT IN
EQUIVOCAL, INACCURATE,
VAGUE, SELF-SERVING AND
ROUNDABOUT TERMS THAT
WE CAN ALL UNDERSTAND?

GOVERNMENT







Predators effects on
ecosystems



Preserving Nature (5)

Protect & restore ecosystems



Food waste and diet (2)

Eliminate waste & eat mostly plants



Fertility and Education (2)

Voluntary family planning &
Nature education for children



It's the Economy Stupid (3)

Revising the economy & investing
in green solutions



Human Population Size (1)

Estimating a scientifically defensible,
sustainable human population size



Preserving Nature

4) curbing the poaching crisis;

5) rewilding regions with native species, especially apex predators, to restore ecological processes;