Science Excellence

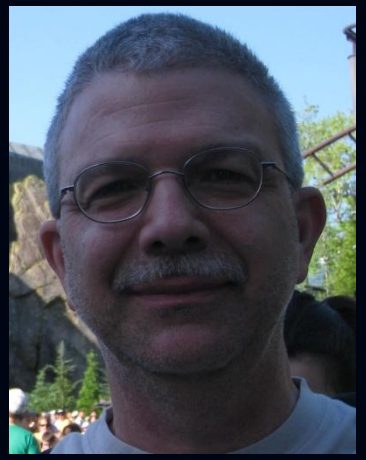
Office of the Science Advisor, OSA

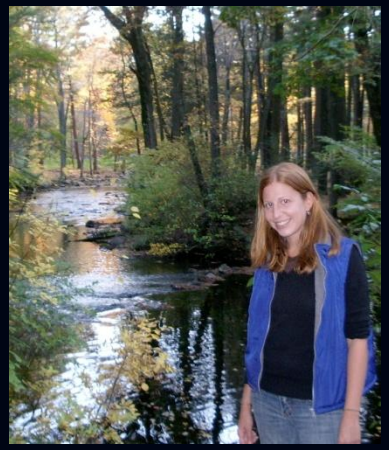
To strengthen the Service's tradition of scientific excellence in the conservation of fish, wildlife, plants and their habitat.

Office of the Science Advisor







Our Extended Science Team

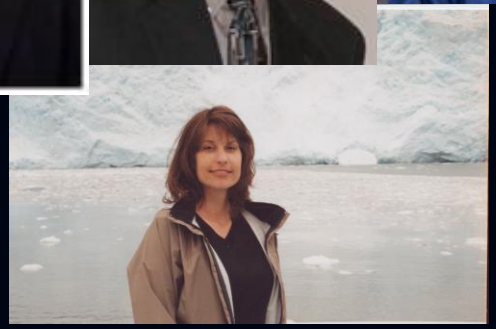












Science Excellence

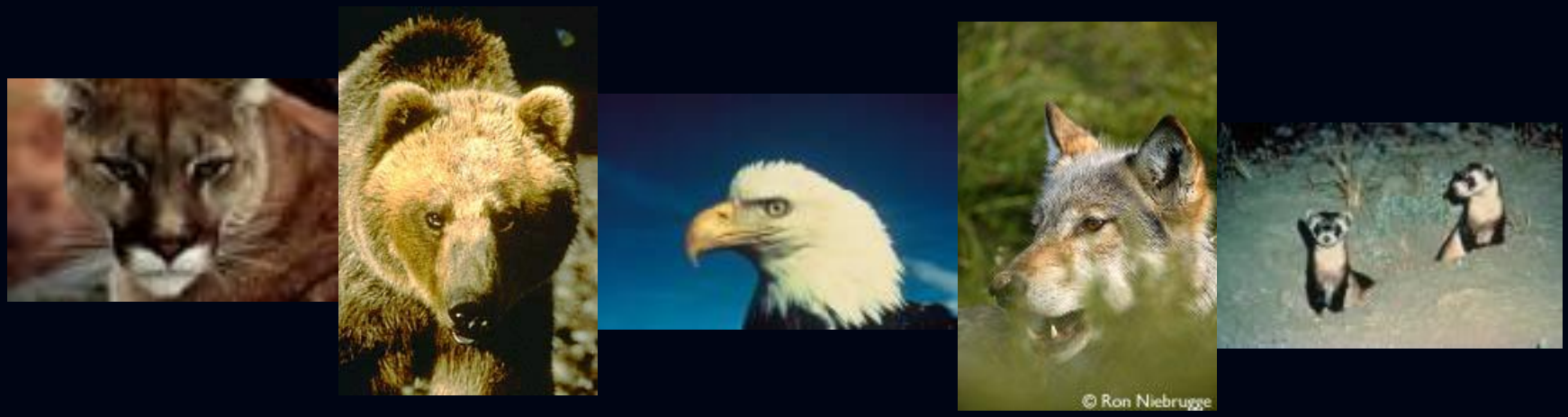
- Expanding our capacities to acquire apply and communicate scientific information.
- Promoting active involvement of the Service and our employees in the larger scientific community.
- Encouraging strengthened partnerships between the Service and other scientific organizations, particularly the U.S. Geological Survey.
- Continue to Grow the next generation of Service scientists.

Our Priorities

- **Science Integrity** *(Science Committee, Information Quality Act. Peer review, FWS Scientific Journals-Journal of Fish and Wildlife Management and North American Fauna)*
- **Climate Change** *(Climate Change Adaptation CCAPs, National Fish, Wildlife, and Plants Climate Adaptation Strategy, National Climate Team)*
- **Landscape Conservation Cooperatives** **(***The Right Science in the Right Places; To Sustain America's Natural and Cultural Resources)*
- **Science Support** *(NSAET, Programs, Special Projects, Webinar Series, Human Resources, External Affairs)*

Science Integrity

- DOI Science Integrity Policy
- FWS Science Committee
- Information Quality Act
- Peer Review



Climate Change

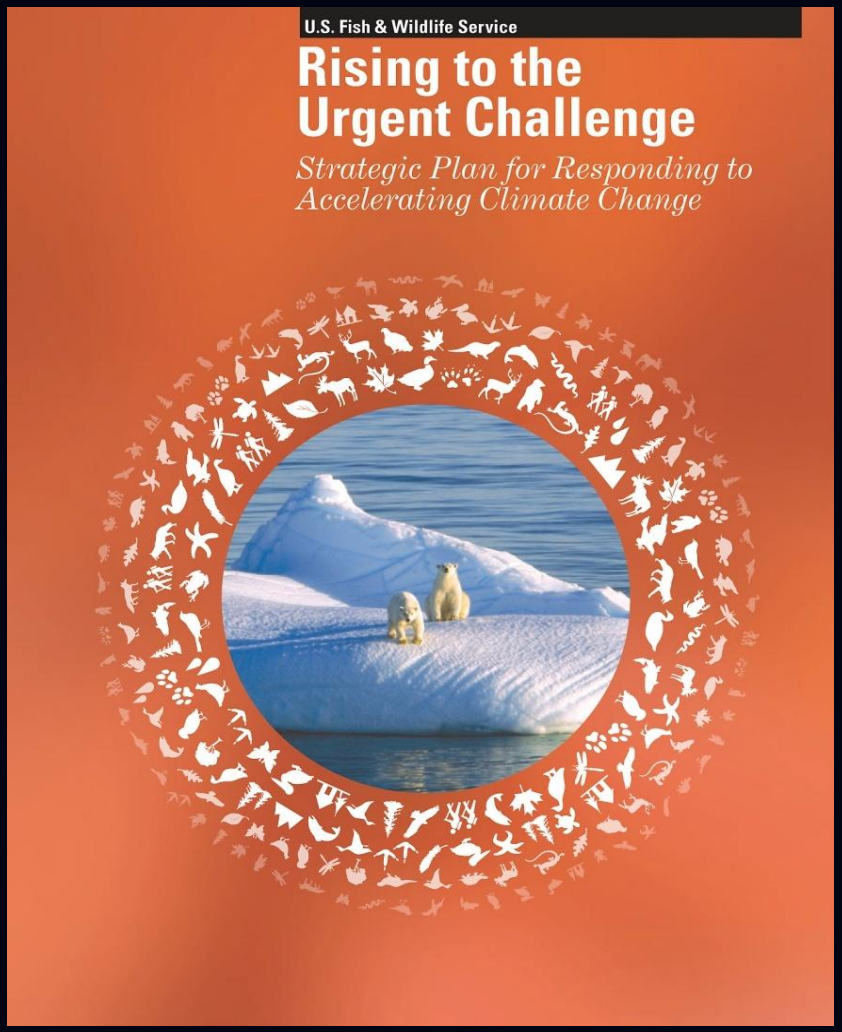
Climate Change Adaptation
National Fish, Wildlife, and Plants Climate Adaptation Strategy
National Climate Team

USFWS Climate Change Strategy

Adaptation – Reducing impacts on fish, wildlife, plants and their habitats

Mitigation – Reducing our carbon footprint

Engagement – Reaching out to partners and the public to seek common solutions



National Climate Team

Credit: Global Change Research Program

Core Team

Extended Team

NFWP Climate Adaptation Strategy - Windows Internet Explorer

http://www.wildlifeadaptationstrategy.gov/

File Edit View Favorites Tools Help

NFWP Climate Adaptation Strategy

NATIONAL *fish, wildlife & plants*
CLIMATE ADAPTATION STRATEGY

CONTACT

Shared solution
protect shared

ABOUT US
Who & Why

THE STRATEGY
What & How

LEARN MORE
Impacts & Adaptation

PARTICIPATE
Events & Feedback



From the Arctic to the Everglades, impacts like rising sea levels, warmer temperatures, loss of sea ice, and changing precipitation patterns are affecting the species we care about, the services we value, and the places we call home.

In addition to ensuring the sustainability of these resources, along with their many ecological, economic, and recreational benefits, we have an obligation to safeguard our nation's natural heritage in a changing world.

In an unprecedented collaborative effort, federal, state, and tribal partners with input from many other diverse groups from across the nation are working together to develop a common strategy to respond to these challenges. The National Fish, Wildlife, and Plants Climate Adaptation Strategy will provide a unified approach—reflecting shared

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available.

WHAT'S NEW

Download our new Stra
Factsheet

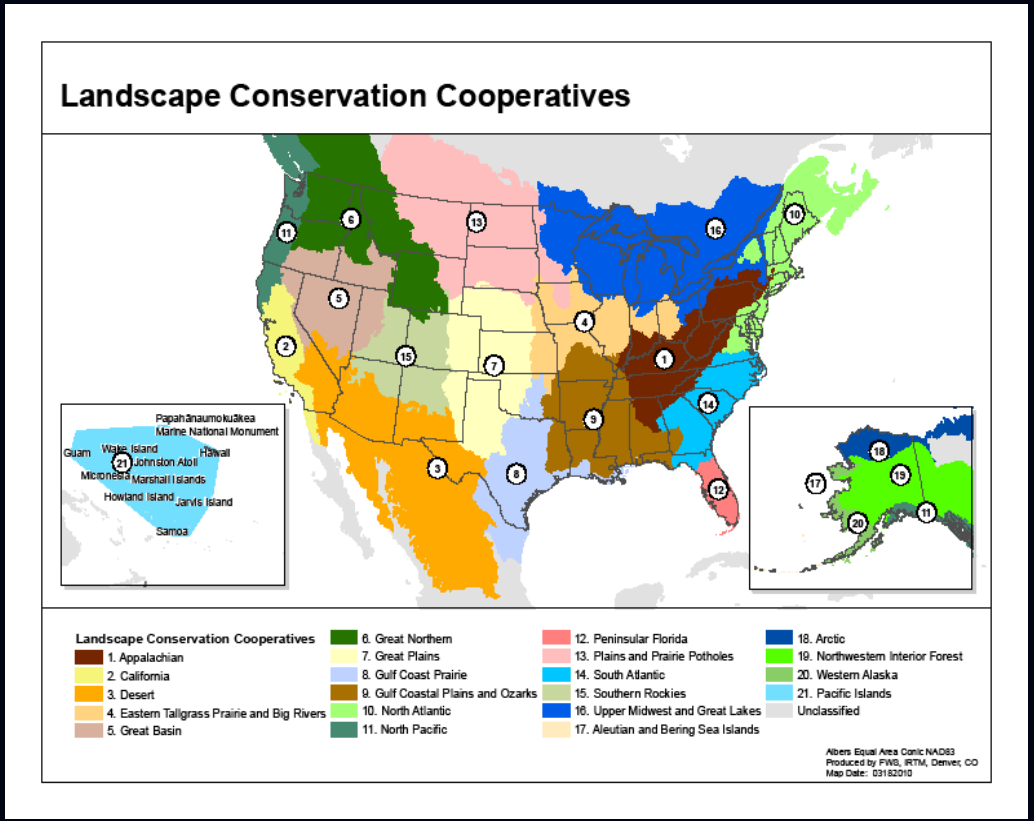
Check out additional
publications and materi

Intergovernmental Support

- FWS, NOAA and NY/DEC to co-lead
- All bureaus within the Interior Department
- USDA's Forest Service, Farm Services Agency, Natural Resource Conservation Service and Animal and Plant Health Inspection Service
- Army Corps of Engineers and DOD Installations
- EPA
- State natural resource agencies
- Tribes

Landscape Conservation Cooperatives

A network of 21 self-directed partnerships that provide science to address large-scale resource threats magnified by climate change.



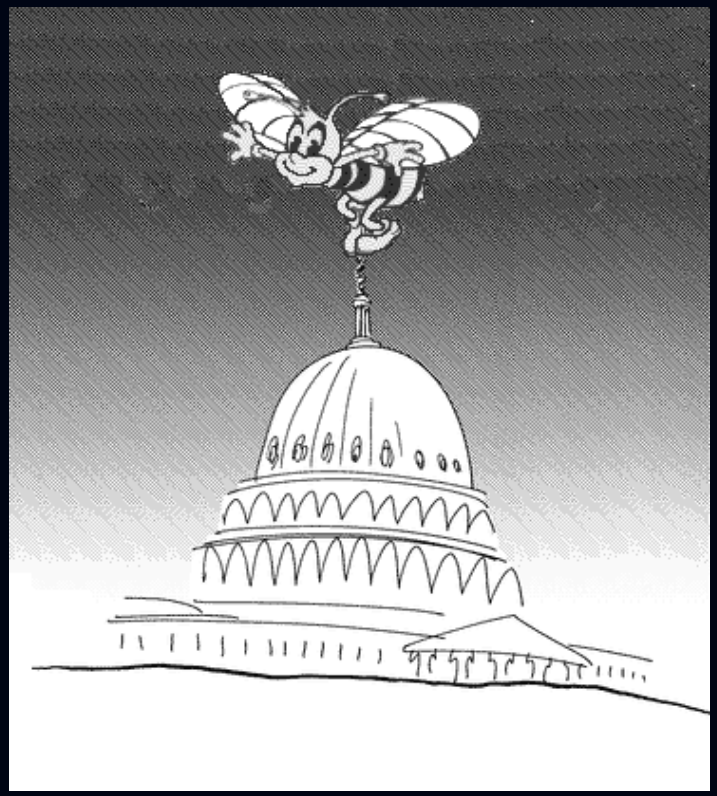
http://www.fws.gov/science/shc/lcc.html

2010 LCC Project Update

- 84 projects/$9.2 Million
- 16 Risk and Vulnerability Assessments
- 17 Inventory and Monitoring
- 25 Resource Assessments
- 21 Resource Planning/Conservation Design
- 5 Management Effectiveness/Research
- Partners include USGS, BLM, NPS, BOR, USFS, DoD, NFWF, States (>20),TNC, DU, WMI, etc.

Science Support

- *NSAET*
- *Programs*
- *Special Projects*
- *Webinar Series*
- *Human Resources*
- *External Affairs*



Personal Interests

- **Pollinators**
- **Invasive Species**
- **Wildlife Diseases** *(Zoonotic diseases)*

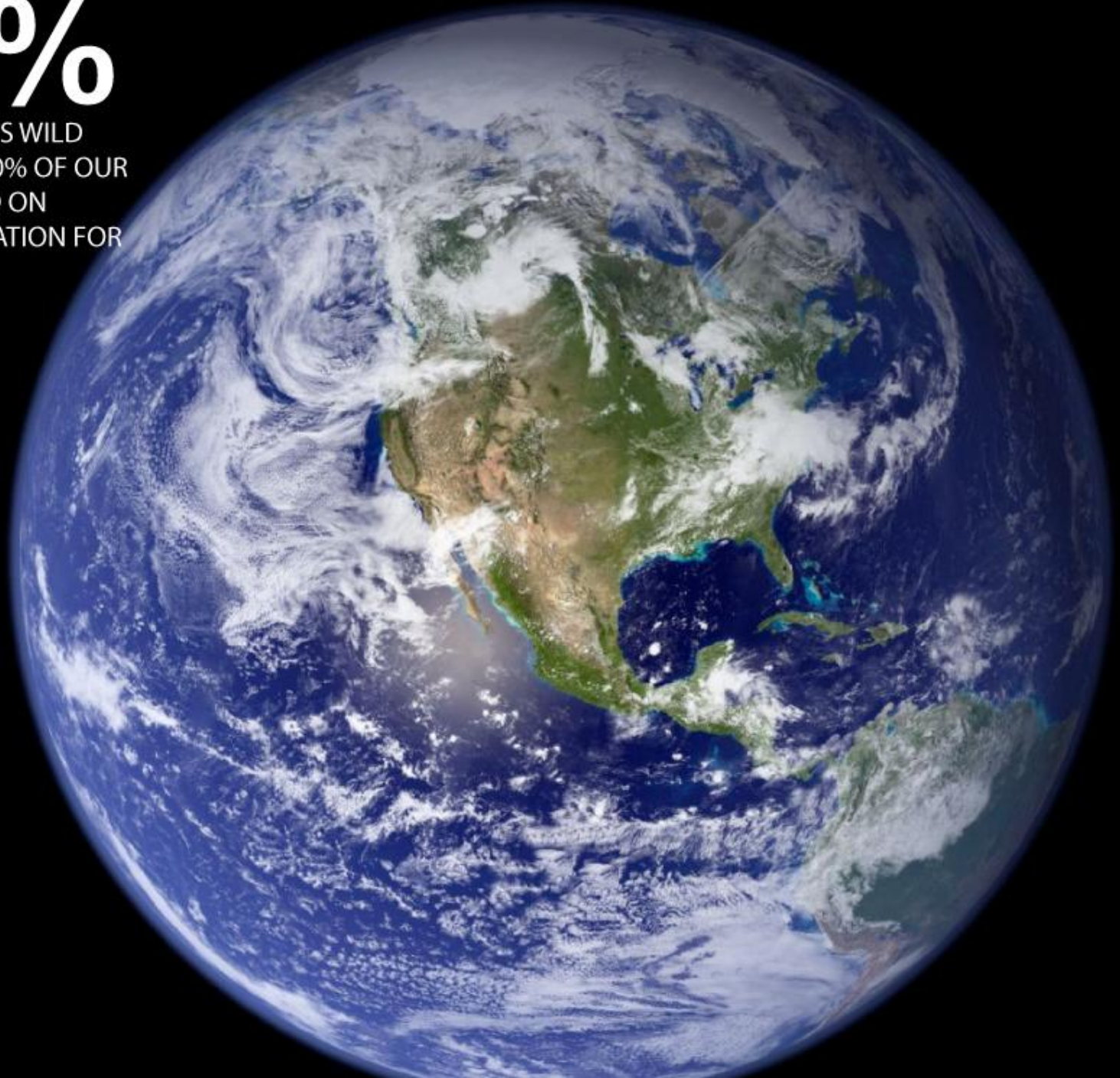


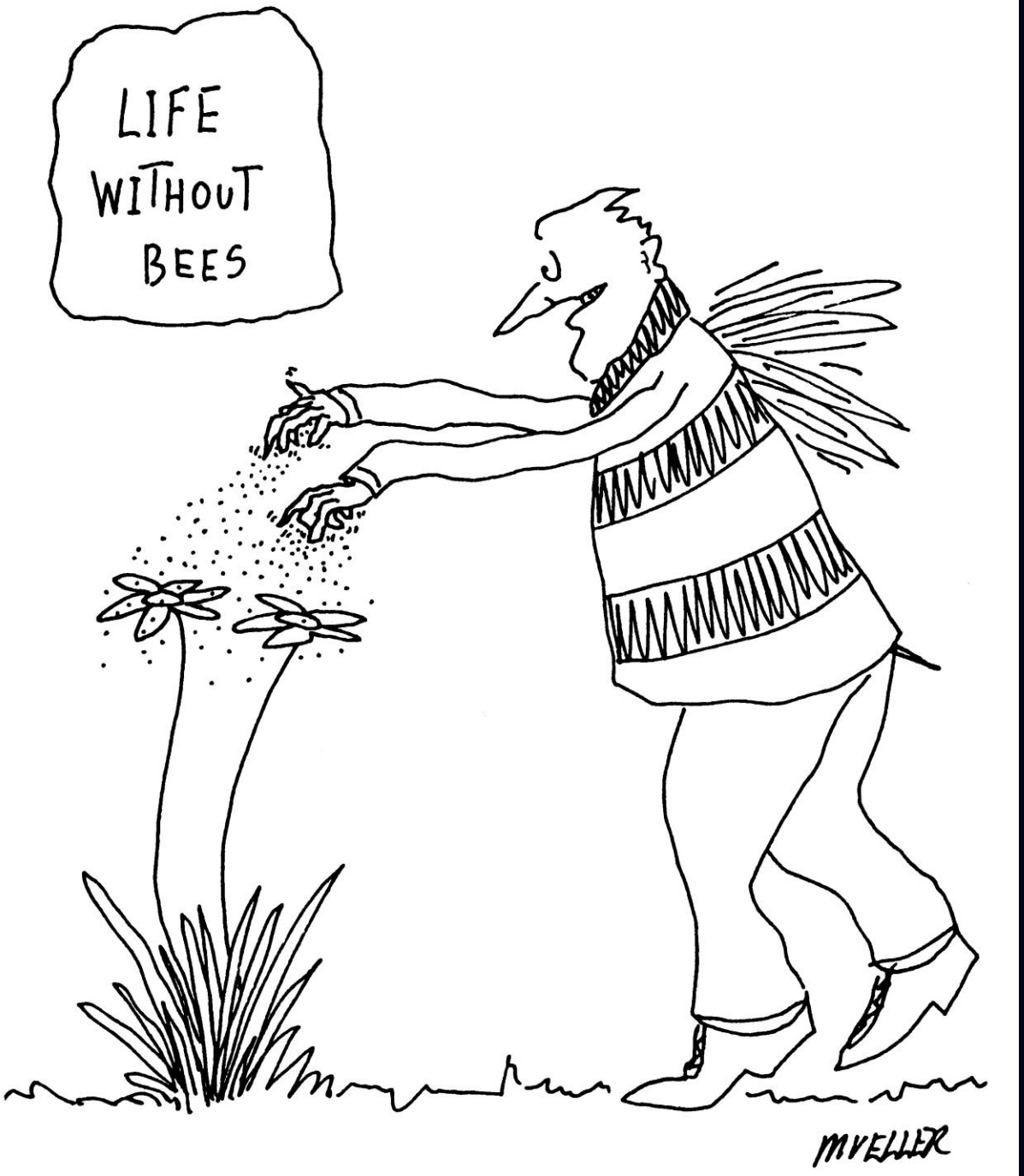
THE BEES ARE DYING

A lesson in scalar relationships and ecology

90%

OF THE PLANETS WILD PLANTS AND 30% OF OUR CROPS DEPEND ON CROSS-POLLINATION FOR SURVIVAL




LIFE
WITHOUT
BEES
MVELLER

Hand Pollination of Apples in China

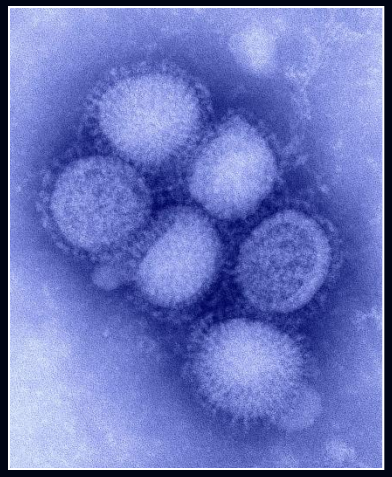
Invasive Species

Wildlife Diseases

75% of recently emerging human infectious diseases have an animal origin

80% of animal pathogens can circulate between humans and animals

60% of all known pathogens are multi-host

Monkeypox Virus

- U.S. outbreak in 2003
- Traced to infected Gambian rats in pet distribution facility
- Rats → prairie dogs → humans
- CDC ban on African rodent imports following the outbreak

Human Activity

- Human activity facilitates the spread of disease
- Industrial food production in areas of high biodiversity
  - Nipah Virus in Malaysia
- **Wildlife trade!**

Thanks!