

*Nonnative plants, regional climate change, and  
emerging desert fire regimes: learning to love the  
Homogocene*



## *Fire in North American deserts*

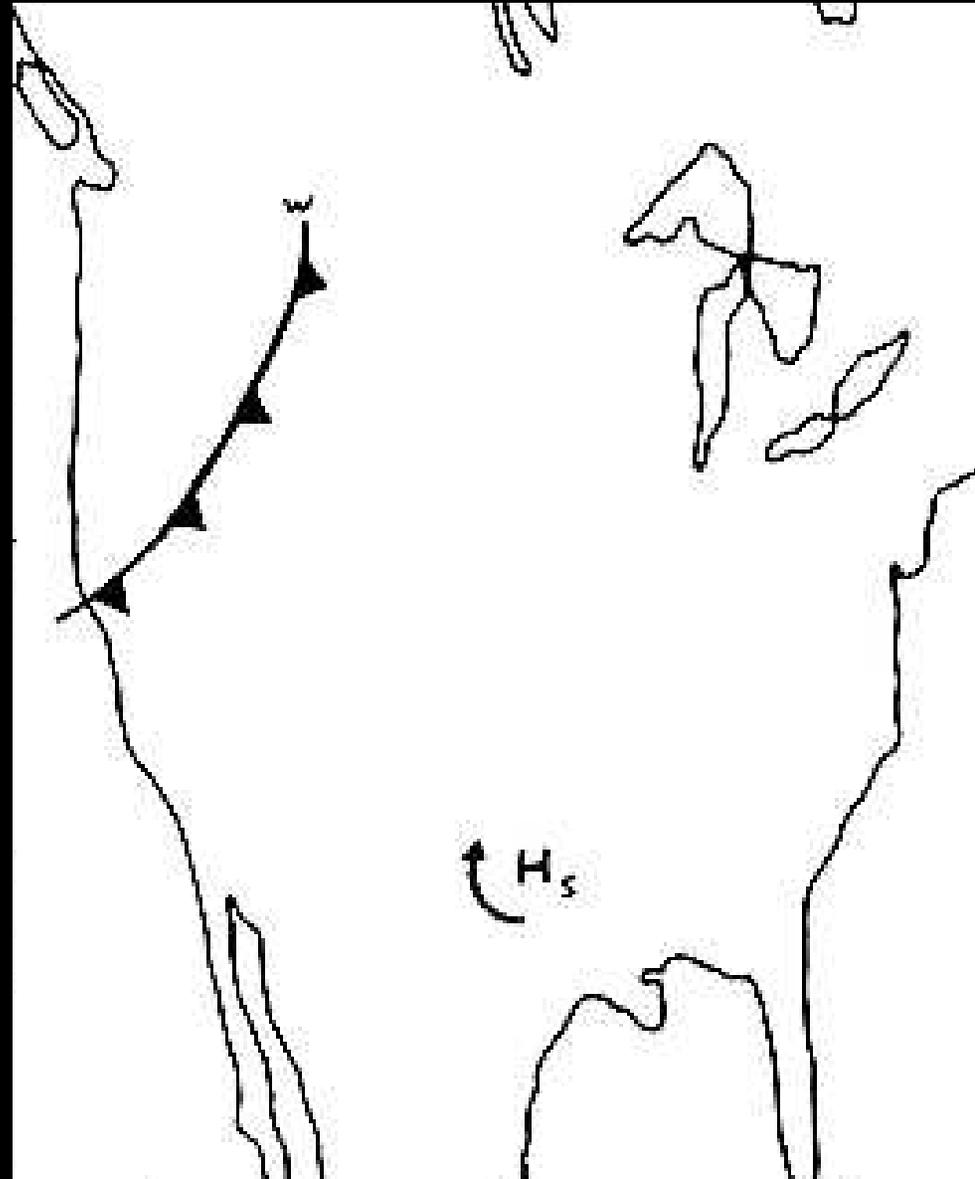
Wright and Bailey (1982) *Fire Ecology: United States and Southern Canada*, Wiley, New York:

“Only deserts with less than 18 cm (7 in.) of precipitation probably escaped the influence of fire on their ecosystems because of a lack of fine fuel.”



# *Regional climate change*

Precipitation:  
bimodal distribution



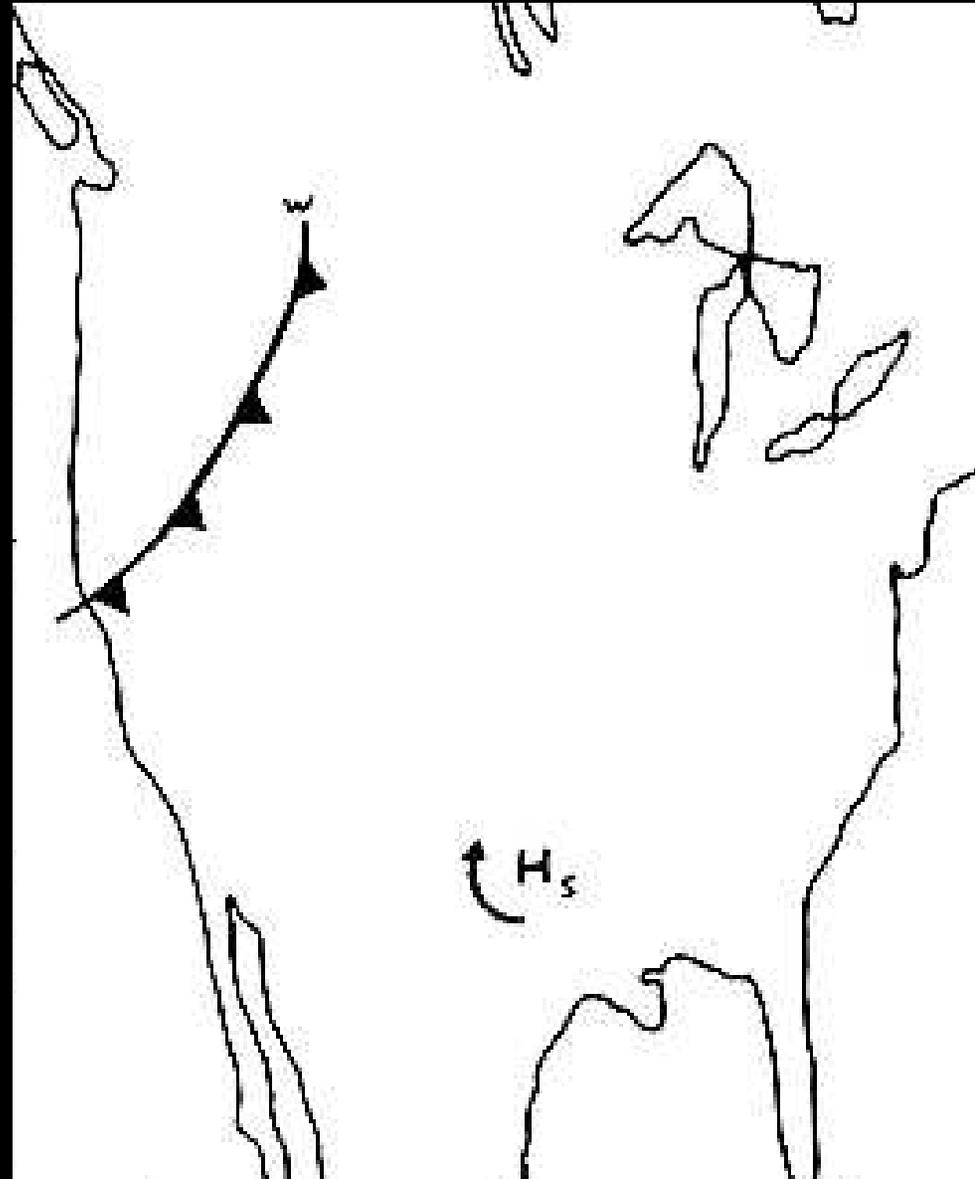
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Pacific Decadal Oscillation  
(PDO)

Atlantic Multidecadal  
Oscillation (AMO)



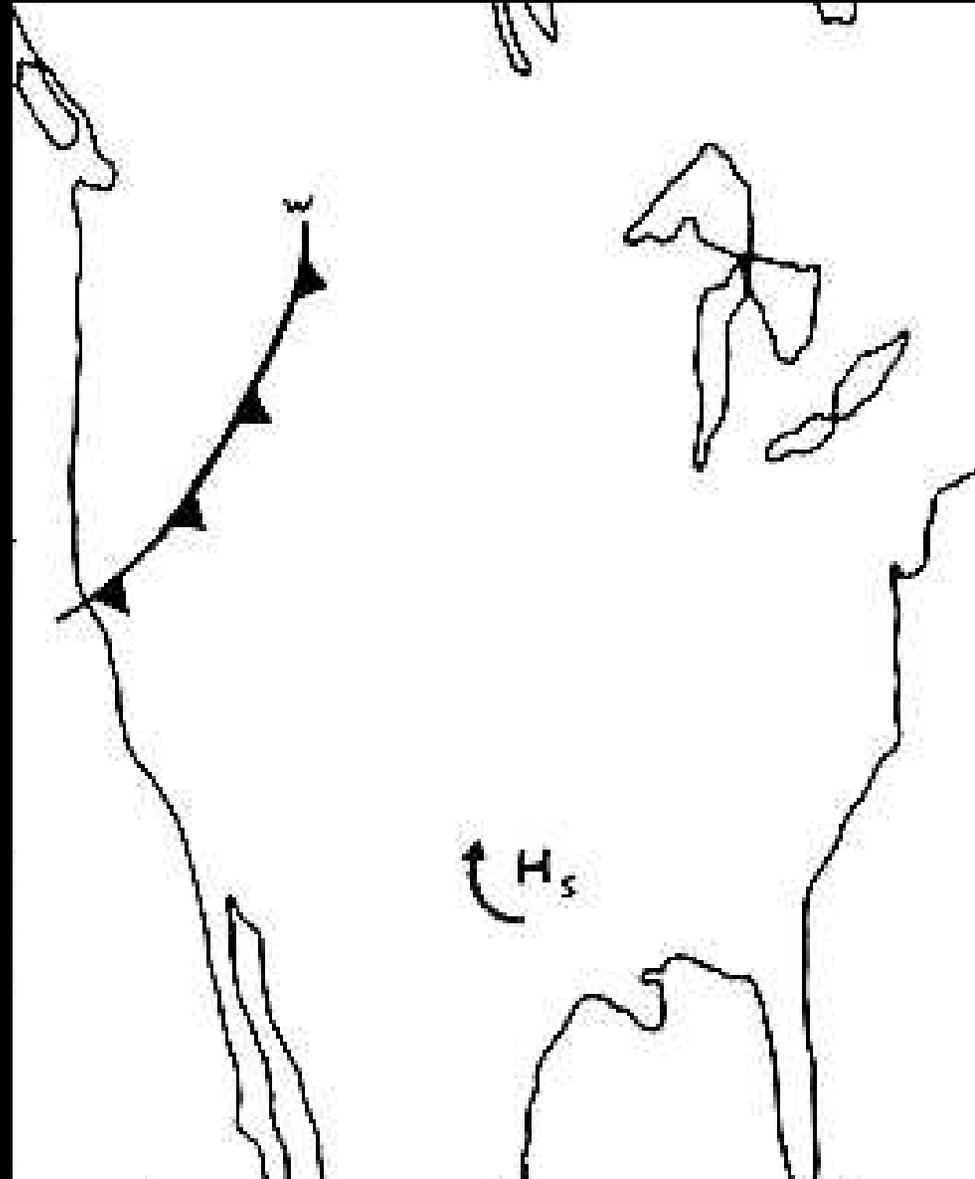
# *Regional climate change*

Precipitation:

reduced during winter?

reduced annual?

increased intensity



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- Evolutionarily unique events

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- **Nonnative species provide 98% of our food**

# *Managing biological invasions*

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# *Intensive management?*

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Teddy Roosevelt is dead ... and so is Gifford Pinchot:

“Conservation of natural resources is the key to the safety and prosperity of American people, and all people of the world, for all time to come”

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\$1 - 2 trillion for Iraq war<sup>+</sup>

\*E.O. Wilson (2002) *The Future of Life*

<sup>+</sup>Bilmes & Stiglitz (2006) ASSA annual meeting, Boston

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David Walker: “Demographic tsunami”<sup>+</sup>

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# *Intensive management?*

- Other priorities at state level, too

*Dominant contemporary force:*



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*politics > science*

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Cows

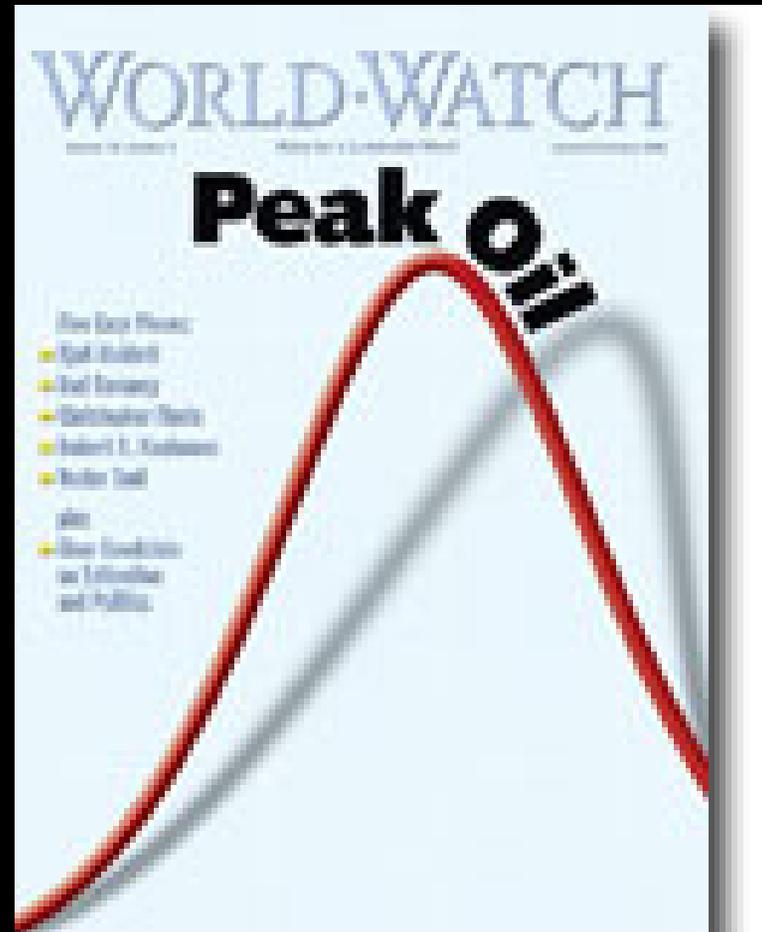
Carp (SRP)

kikuyu grass (turf)

# *Intensive management?*

- Other priorities
- Peak oil

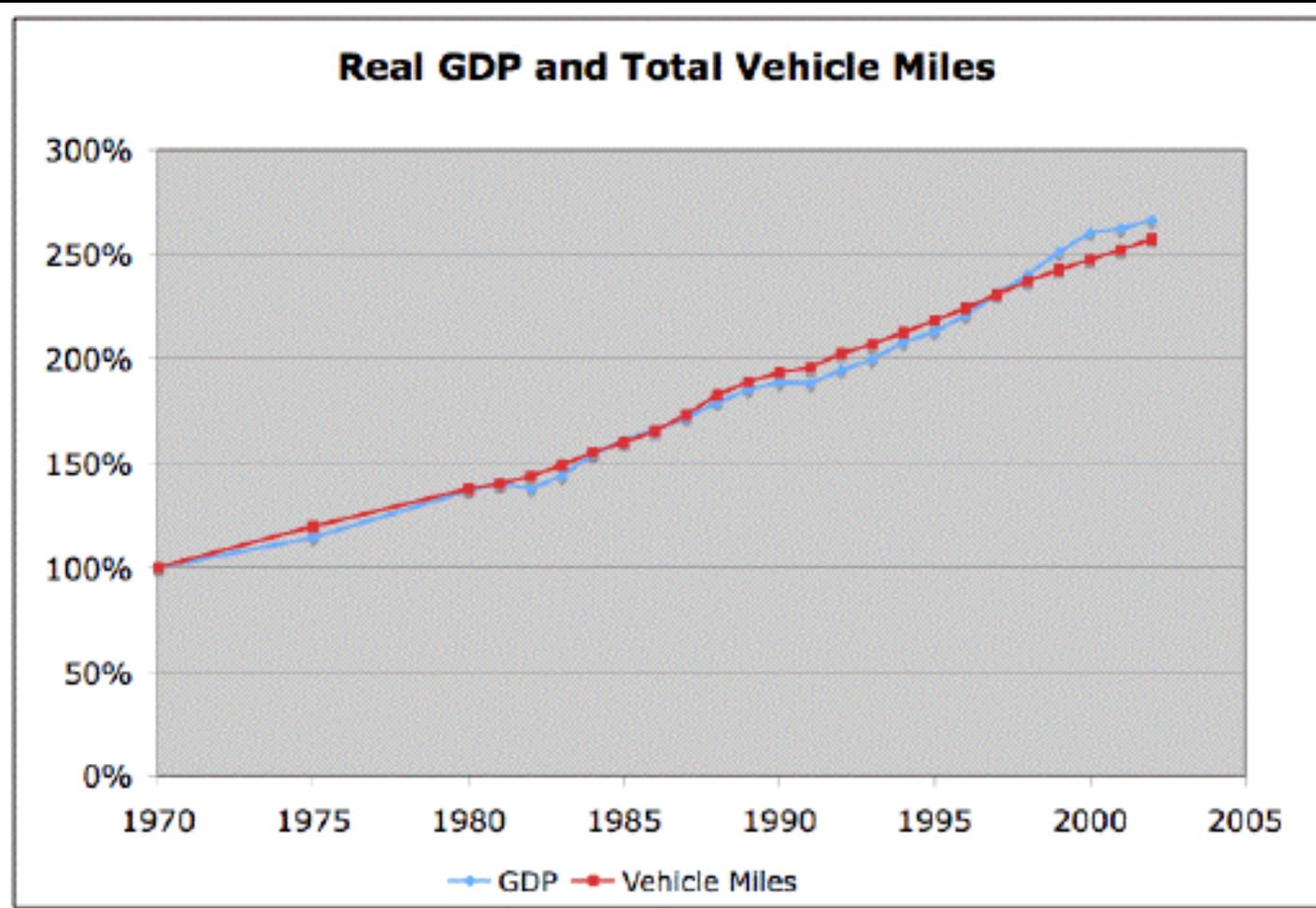
America is addicted to oil\*



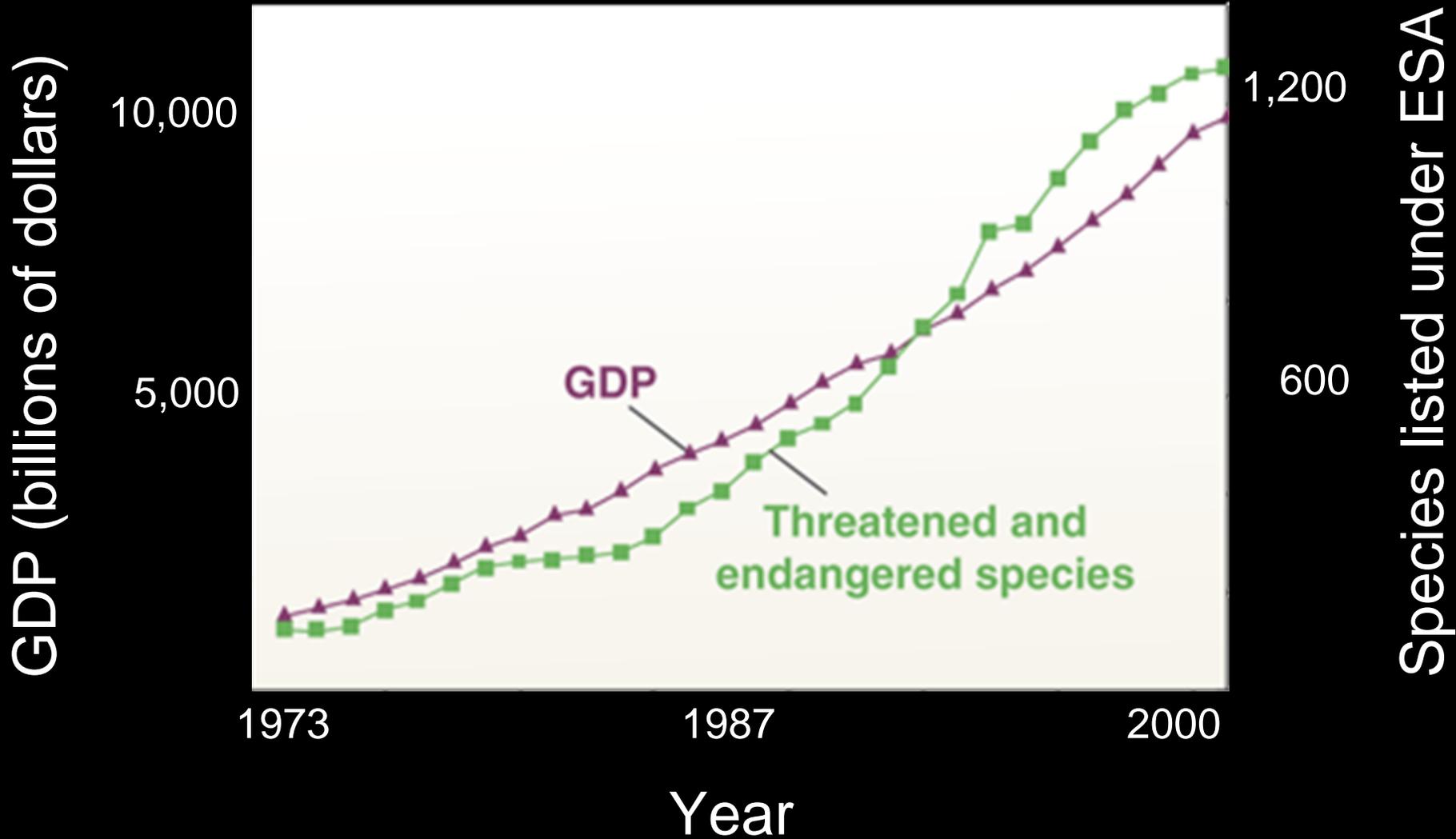
\*George W. Bush, State of the Union address, 31 January 2006

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# Rare species (and cultures)

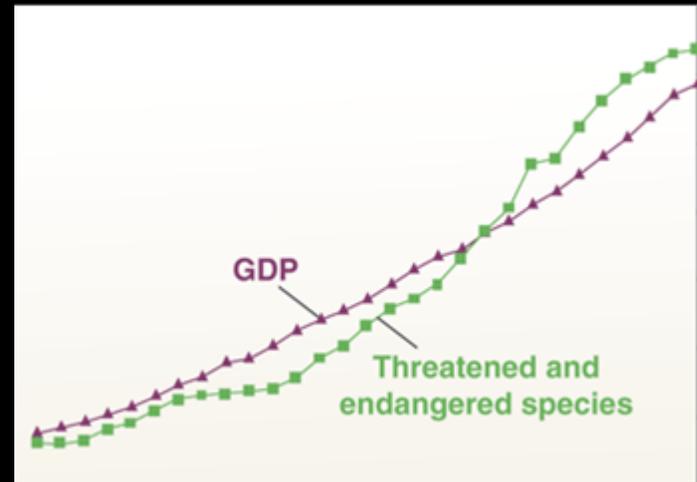
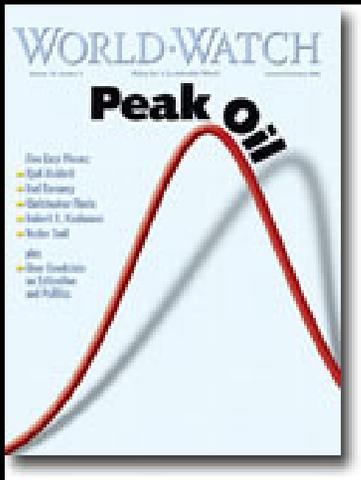


# *Transportation infrastructure*

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- Primary conduit of spread

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- Policies + peak oil → economic collapse (the strategy)



# *Stopping the addiction, cold turkey*

*Peak oil → Greatest Depression*

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Runaway inflation (>1,000%/year)

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Very little gasoline, diesel

No food in the grocery stores

No fossil fuels for A/C or heat

No water from the taps

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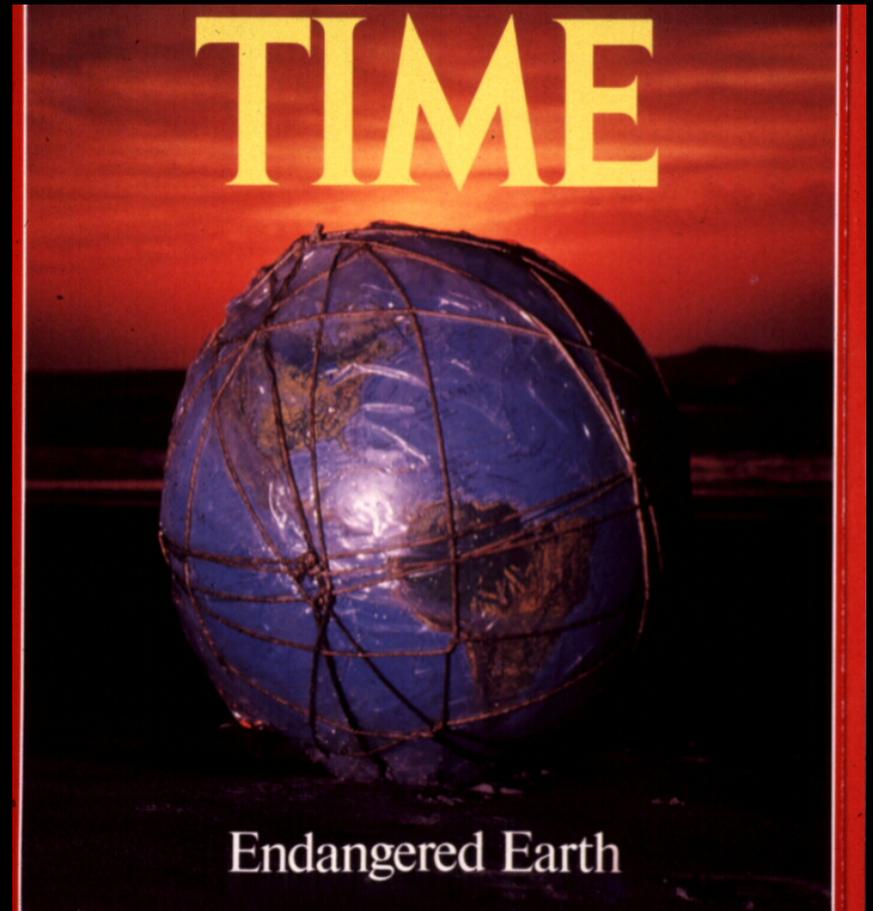
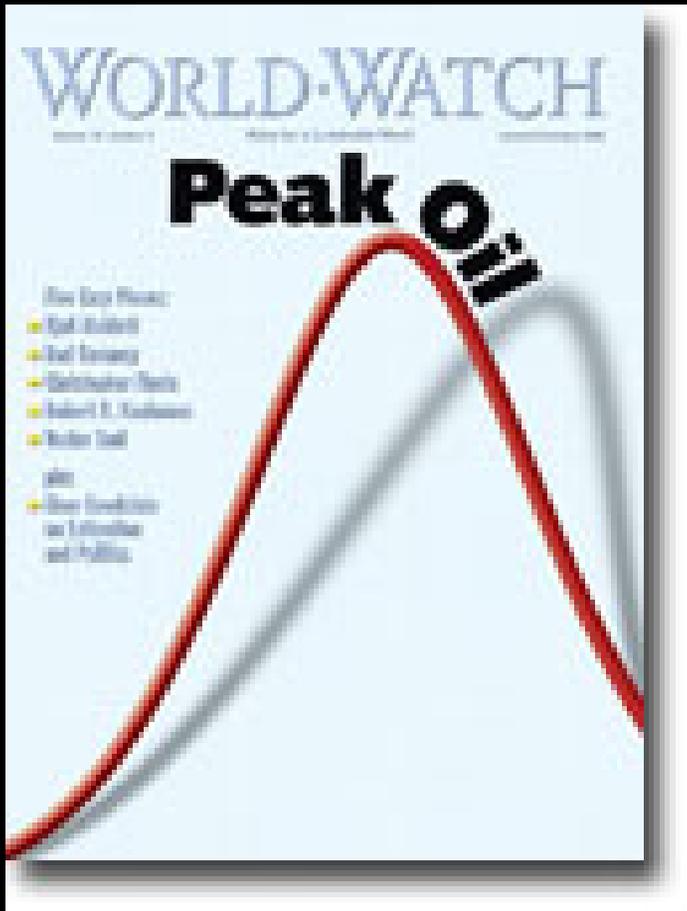
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**NO CIVILIZATION**

# *Stopping the addiction, cold turkey*



# *Learning to love the Homogocene*

