Politics, Science, and Wildlife Conservation

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SENATOR MIKE PHILLIPS
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COMMITTEES:
TAXATION
AGRICULTURE
NATURAL RESOURCES
RULES
ENDANGERED SPECIES ACT OF 1973

As Amended through the

100th Congress

U.S. Fish and Wildlife Service
U.S. Department of the Interior
Washington, D.C. 20240
Charles David Keeling -- the first person to make high precision continuous measurements of carbon dioxide in the atmosphere.
“We can only succeed by concert. It is not, can any of us do better, but can we all do better? The dogmas of the quiet past are inadequate to the stormy present. The occasion is piled with difficulty, and we must rise with the occasion. As our case is new, so we must think anew and act anew.”

Abraham Lincoln, December 1, 1862
“Genuine politics – even politics worthy of the name – the only politics I am willing to devote myself to – is simply a matter of serving those around us: serving the community and serving those who will come after us. Its deepest roots are moral because it is a responsibility expressed through action, to and for the whole.”

Vaclav Havel, Czechoslovakian President, 1989-1992
SB 498 - An Act Regulating Carbon Sequestration
HB 253 - Wild Buffalo Recovery and Conservation Act
Why politics trump science:

Politicians see politics as a zero sum game.

Science is more difficult than politics.
“Ideology is the science of idiots.”

President John Adams
In the late 1700s there was no way to form a viable republic that resolved the problems related to the rights of:

- the federal government versus state governments,
- women,
- native Americans, and
- slaves.
The Constitution provides a framework for debating salient questions, endlessly if need be.
BIOLOGY IS NOT BIGOTRY
“We can’t win a war, but we can win an election.”

Nelson Mandela
“Those who have the privilege to know, have the duty to act.”

Albert Einstein

WHEREAS, coal represents the most abundant source of energy in the United States; and
WHEREAS, coal is one of the most reliable and affordable sources of fuel for electric generation; and
EMERGENT AND THREATENED SPECIES CONSERVATION ACT OF 1973

JULY 27, 1973—Committee to the Committee of the Whole House on the State of the Union and ordered to be printed

MRS. SULLIVAN, from the Committee on Merchant Marine and Fisheries, submitted the following

REPORT

[To accompany H.R. 37]

The Committee on Merchant Marine and Fisheries, to whom was referred the bill (H.R. 37) to provide for the conservation, protection, and propagation of species or subspecies of fish and wildlife that are threatened with extinction or likely within the foreseeable future to become threatened with extinction, and for other purposes, having considered the same, report favorably thereon with amendments and recommend that the bill as amended be sent out

The amendment to the text of the bill strikes out all after the enacting clause and inserts in lieu thereof a substitute which appears in the report bill in italic type.

The other amendment modifies the title of the bill to make it conform to the changes made by the amendment to the text.

PURPOSE OF THE LEGISLATION

BACKGROUND AND NEED FOR THE LEGISLATION

Throughout the history of the world, as we know it, species of animals and plants have appeared, changed, and disappeared. The disappearance of a species is by no means a current phenomenon, nor is it an occasion for terror or panic. It is however, at the same time an occasion for caution, for self-searching and for understanding. Man's presence on the Earth is relatively recent, and his effective domination over the world's life support systems has taken place within a few short generations. Our ability to destroy, or almost destroy, all intelligent life on the planet became apparent only in this generation. A certain humility, and a sense of urgency, seem indicated.

From all evidence available to us, it appears that the pace of disappearance of species is accelerating. As we homogenize the habitats in which these plants and animals evolved, and as we increase the pressure for products that they are in a position to supply (usually unwillingly) we threaten their—and our own—genetic heritage.

The value of this genetic heritage is quite literally, inevitable. The blue whale evolved over a long period of time and the combination of factors in its background has left it in a position to supply a limited number of products. We may not be able to replace it, and we must not lose sight of the fact that the genetic information contained in the blue whale is as important to the future of the world as the genetic information contained in all the other species that have ever lived.
Basic physics of the greenhouse effect

Since the late 1800s scientists have know that some atmospheric gases (e.g., CO$_2$) are very effective at trapping heat (long wave thermal radiation) and reradiating it back to the earth’s surface.

Svant Arrhenius
Calculus of extremes

The distribution of weather events around the climatic average often follows a ‘bell-shaped’ curve.

Climate change can involve change in the average, or the spread around the average (standard deviation), or both.

A shift in the distribution of temperatures has a much larger relative effect at the extremes than near the mean.

A shift of 1 standard deviation makes a 1 in 40 yr event into a 1 in 6 yr event.
Minimum Temperature Distribution
Billings, MT

Normalized Frequency

Temperature °F

1950's
2000's
Maximum Temperature Distribution
Billings, MT

Normalized Frequency

Temperature

1950's
2000's
WASHINGTON (AP) — We've become weather wimps.

As the world warms, the United States is getting fewer bitter cold spells like the one that gripped much of the nation this week. So when a deep freeze strikes, scientists say, it seems more unprecedented than it really is. An Associated Press analysis of the daily national winter temperature shows that cold extremes have happened about once every four years since 1900.

Until recently.

When computer models estimated that the national average daily temperature for the Lower 48 states dropped to 17.9 degrees on Monday, it was the first deep freeze in 17 years, according to Greg Carbin, warning meteorologist for the National Oceanic and Atmospheric Administration.

That stretch — from Jan. 13, 1997 to Monday — is by far the longest the U.S. has gone without the national average plunging below 18 degrees, according to a database of daytime winter temperatures starting in January 1900.

In the past 115 years, there have been 58 days when the national average temperature dropped below 18. Carbin said those occurrences often happen in periods that last several days so it makes more sense to talk about cold outbreaks instead of cold days. There have been 27 distinct cold snaps.

Between 1970 and 1989, a dozen such events occurred, but there were only two in the 1990s and then none until Monday.

"These types of events have actually become more infrequent than they were in the past," said Carbin, who works at the Storm Prediction Center in Norman, Okla. "This is why there was such a big buzz because people have such short memories."

Two people duck into the blowing snow as they leave the U City Loop next to the statue of Chuck Berry on Sunday morning in St. Louis. Heavy snow combined with strong winds and bitter cold created a dangerous winter mix Sunday over much of Missouri.
Data From Murphy et al 2009, Domingues et al 2008
Graph from http://www.skepticalscience.com/

Steve Running slide
Since 1986:
Western Fire Season 78 days longer
4X Increase in Fires > 1000acres
6X Increase in Acres Burned
> Increase in Forests above 6500ft
“With all the hysteria, all of the fear, all of the phony science, could it be that man-made global warming is the greatest hoax ever perpetrated on the American people?”

Senator James Inhofe (R-NE), July 28, 2003 before U.S. Senate Committee on the Environment and Public Works
“There can be no purpose more enspiriting than to begin the age of restoration, reweaving the wondrous diversity of life that still surrounds us.”

E.O. Wilson
“If we don’t change our direction, we’re likely to get where we’re heading.”

Chinese proverb
“We end, I think, at what might be called the standard paradox of the 20\textsuperscript{th} century: our tools are better than we are, and grow better faster than we do. They suffice to crack the atom, to command the tides. But they do not suffice for the oldest task in human history: to live on a piece of land without spoiling it.”

Aldo Leopold
generate 25% of America’s energy from working farms and ranches by 2025 while providing abundant and affordable food and fiber and high quality habitat for native species
FOR IMMEDIATE RELEASE
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Legislators Think Globally, Act Locally with Climate Change Caucus

(Helena, MT) -- The Montana Legislature’s Climate Change Caucus convened for its first meeting on Wednesday, January 17.

Through efforts to redress climate change, state governments can play an important role promoting:

1. national security,
2. economic development and durability, and
3. environmental integrity.
Introduced bills of relevance to conservation biology, including:

* restoration of plains bison
* sane management of natural resources
* energy efficiency
* reduction of greenhouse gas emissions
Focusing on parliamentary procedures and legislative rules allows one to influence all manner of legislation.
Some examples of politics trumping science:

Wolf Bills - HB 177, HB 321
The Wildlife Society –

advance co-existence between humans and wildlife through management based on reliable science
Calculus of extremes

Standard deviation

1 in 40 yr high range

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Steve Running slide