

There are plants as old as civilization
Enormous events can happen quickly in decades
or a lifetime - No biological time EXAMPLES

Wow Synergy Analogy - quiet day - Stone wall Fall
Thin membrane - Atmosphere
Average car, driven only 10,000 miles emits its
weight of carbon into the atmosphere every year.
Book with Gas 45%

Ph. of Rain - on Adirondack Mountains - 10 to 14
times as acid.

We are at the End of Nature

1) Book - with phrase we're going through. Biologist A.J. Lotka
"The present is an eminently atypical epoch
- Not just a binge - contracting a deadly disease,

global warming. But
.035 percent CO₂ now - move that to .06% problem.

13 Next 1/2 century UN predicts 500% - 1000%
Economic growth
Rain forest - holds 2-5 times as much carbon
By 2040 - 2070 well have doubled CO₂

This is not a speculative theory.

20 Cloudiness will increase - reduce the warming.

21 Albedo - Degree to which sun's rays are reflected

22 Bi/Tons - Burning Rain Forest

5.6 Bst tons " Fossil Fuels.

25 - Trees are dying all over - hard to prove why

"In every case it looks like some special cause"

COAL so filthy. Banned in London in 13th Century

36 - Now - Non traditional Pollution

a) Acid Rain. Tall smokestacks spread it everywhere
Death of Trees - starts to have its causes everywhere

b) Depletion of Ozone Layer - Best example of New Pollution

45 Thermal Equilibrium of the Oceans saving us?

46 What man has done - change the atmosphere

51. Paul Brooks - Speaking for Nature
56 Researchers placed tents only forest patch to show they will
recover when acid bath removed.

57 Cows on 70% of Federal Land in West / Program loses money.
- Cows only 30% of Beef. When we change

58 New Rupture with Nature is Different / weather - we make
"Whatever we once thought Nature was - wildness; God; a simple

Every place free from human thumbprints, or an intricate machinery
spot sustaining life on Earth - we have now given it a kick that will
on change it forever. Humanity has stepped across a threshold. In his
earth free-ranging and provocative book, Bill McKibben explores the
man philosophies and technologies that have brought us here, and he
made shows how final a crossing we have made."

and artificial. We have de- James Gleick, author of *Chaos*
prived nature of her independence - her independence
to that is its meaning.

"By the end of nature Mr. McKibben means the end of nature as a
force independent of man. . . For a man preaching apocalypse, he
speaks in a measured and civilized voice that deserves a hearing."

Aceptable - New York Times Book Review
The Journal

60 MAN - Over powered in the processes
"The End of Nature is not another doomsday book. McKibben does
not forecast the end of man but the end of a primal relationship. . .
It is almost impossible for a reader to walk away from this book and
not reassess his relationship with a world where rapid growth and
smog make it harder each night to see the stars."

That have been slowly evolving and Daily News (Los Angeles)
Changing since the earth was born.

"[The End of Nature] will probably become the critical text for intel-
ligent environmentalism in the next decade."

63 Oxygen - was greatest pollution crisis - The Independent (London)
the earth ever endured

64 "Like Aldo Leopold, Rachel Carson and Jonathan Schell, McKibben
we belongs to that rare breed of writer who will take an honest look at
have what we have done to the earth. The End of Nature is his brave
ended attempt to record some of the consequences of our folly."

the separation of nature from human Albuquerque Sunday Journal
secret

66 Invention of Nuke Weapons - Beginning of the end of nature.
"This is a thoughtful book by a fine writer."

72 - A Christian - Still feels - Overwhelming San Francisco Examiner
of goodness and sweetness at work in

The world.
The Earth is a museum of divine
divine intent.

76 He finds Judeo/Xian "reverence for nature"
in gods rare to Job - a bet? stretching it.
80 (A) If we have a wonderful sense of the divine,
is because we live amid such awesome
Magnificence *

~~"A dark and unsettling account of the abuse we've done to our environment and of the unprecedented effects—both physical and philosophical—it is going to have on our future."~~ —*Vanity Fair*

"You must read *The End of Nature*. You mustn't be happy about it, but please read it. It is a great and terrible work, like few that have been written."
—Rick Bass, author of *Oil Notes*

"Once into this deceptively slim and readable volume, the indisputable power and inevitability of the message takes over . . . McKibben's book is especially valuable because it explains what is likely to be the major environmental issue of the 21st century in clear and very thoughtful fashion."
—*Christian Science Monitor*

"Bill McKibben has written a graceful, witty and tragic essay about the consequences of global warming caused by the Greenhouse Effect."
—*Los Angeles Times*

"[McKibben] may well already have taken his place next to Rachel Carson and *Silent Spring*."
—*Baltimore Evening Sun*

"*The End of Nature* will provoke some deep thinking in all who read it, and may prove to be the ultimate in green books."
—*Belfast Times*

"For anyone interested in knowing what it will be like to live in a greenhouse world, may I recommend Bill McKibben's recently published book *The End of Nature*? While unsettling to read, it is too gripping to lay down."
—*Dallas Morning News*

"This is just the tocsin we've been waiting for—angry, eloquent, manifoldly knowledgeable. Let it ring and ring and ring. Let it Klaxon for that matter. Let it cause a hell of a stir."
—Edward Hoagland

Deca...
6) Depletion of O₂
45 Thermal Equilibrium
46 What man has done