

Human Supremacism, Capitalism, and Ecological Collapse

Prof. John Sanbonmatsu
Worcester Polytechnic Institute

For Canadian Association for the Club of Rome

Outline:

Ecological collapse

Origins of the Crisis

Speciesism as a Mode of Life

Consequences of the Animal System

Ontology and Ethics

Toward an Interspecies Democracy

Apocalypse

Mass Mortality Events -- Signs of Planetary Ecological Collapse

- Australia's Western plains, millions of kangaroos went blind and hemorrhaged to death.
- On Robben and Dassen Islands off South Africa, 60,000 African penguins starved to death (95% of their colonies lost).
- Off the coasts of Bangladesh, Baja, the Philippines, Scotland, San Francisco, thousands of whales and dolphins perish in mass strandings, ship collisions, starvation.
 - Songs by blue whales have declined by as much as 40%. "It's like trying to sing while you're starving. They were spending all their time just trying to find food."
- In Kazakhstan, half of all saiga antelopes suddenly collapsed and die.
- In the US Southwest and Rome, thousands of songbirds dropped dead from the skies.
- Off the South African coast, sixty thousand African penguins perished from lack of food.
- In Alaska, 4,000,000 common murre (*Uria aalge*) obliterated in a marine heat wave.
- 5,000,000,000 Pacific starfish lost their limbs, then dissolved into a sticky white fluid.
- 10,000,000,000 billion snow crabs--90% of species--starved to death in the Bering Sea.
- Avian flu (HPAIV) is decimating hundreds of species: in Argentina's Valdes Peninsula, 97% of elephant seal pups died.

Mass extinction
Accelerating biodiversity losses
Global warming: fires, floods, droughts
PFAS, Neonicotinoids, pesticides
Hunting and poaching
Ozone depletion
Smog and deteriorating air quality
Algal blooms ("Red Tides")
Toxic Waste
Mountaintop removal
Soil erosion and depletion
Pollution of the seas
Zoonotic diseases
Burning of rainforests
Loss of freshwater systems
Deep sea mining
Et cetera.

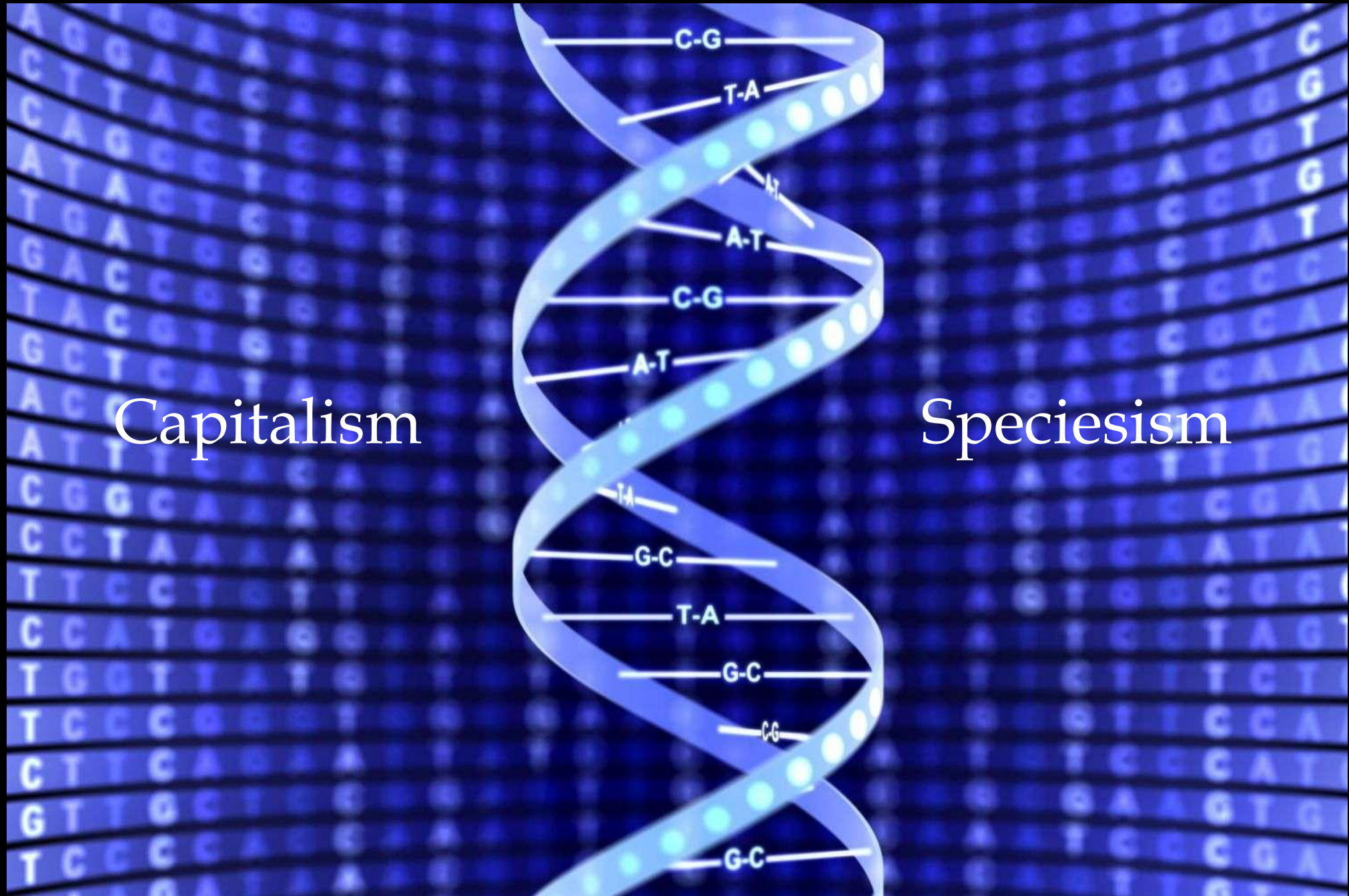


“We’ve failed big time. We as environmentalists focused on issues: drilling in the Arctic National Wildlife Refuge, threats to the caribou herd, stopping a dam in the Amazon. But even when we won, we failed as a movement to change the underlying assumptions of society, the behavior of government and business people.”

-- David Suzuki, 2023

Capitalism

Speciesism



Ecological Marxists:

Not the “Anthropocene,” but the “Capitalocene” (Moore).

Environmental problems are the inevitable result of internal logics and structural contradictions of the capitalist system.

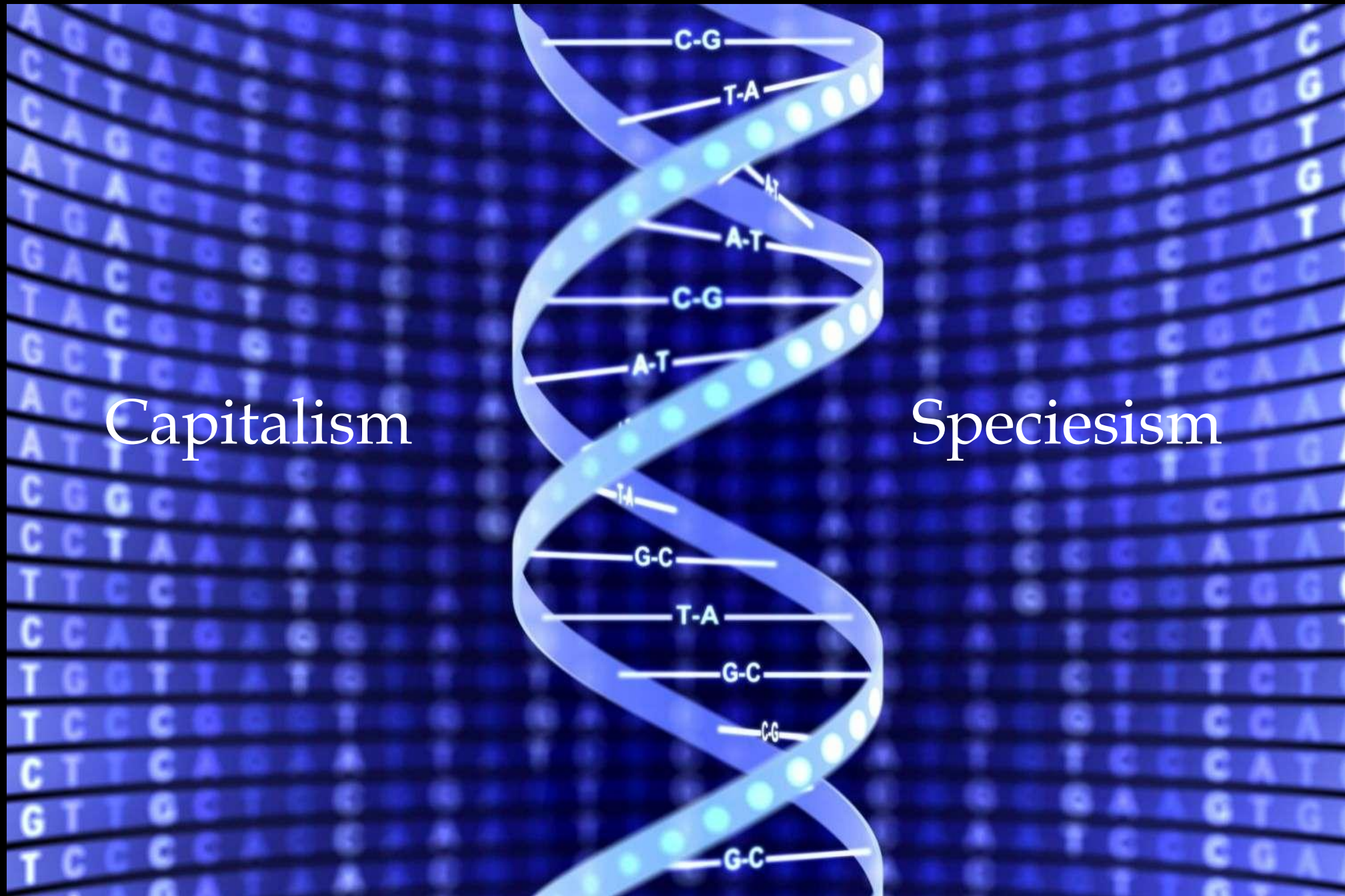
Capitalism and Metabolic Rift Between *Homo sapiens* and Nature

- Nature and living beings are reduced to the status of commodities, then degraded or destroyed in the extraction process.
- Ecological costs of production are "socialized," sloughed off onto vulnerable communities.
- Monopolization concentrates power in the hands of an industrial and technological elite opposed to structural reform or revolution.
- Oligarchy distorts the the information environment, destabilizing democracy and making social change difficult.
- Degradation and destruction of ecology worsens the legitimation crisis of the state, as the state loses its core function of securitization.

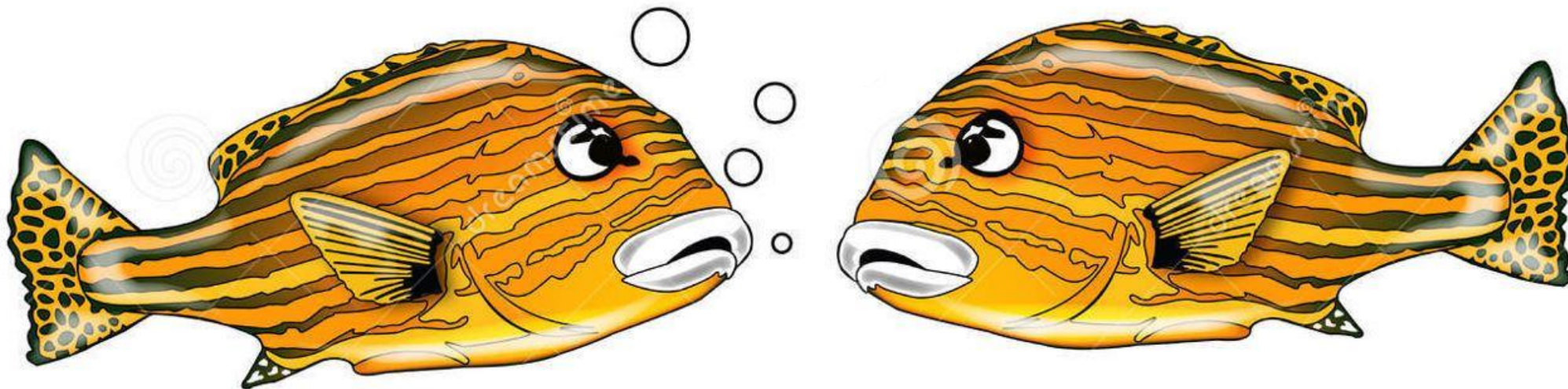
- The capitalist system alienates us from Nature, other animals, and one another.
- Reification turns living beings into objects, while "subjectifying" machines.
- The subject's interpellation as a "consumer," rather than an ethical subject or citizen, mutilates consciousness (Marcuse).
- Epistemic fragmentation from the media environment and commodity process makes political consensus impossible (the "silo" effect).
- As capitalism creates an artifactual world after its own image, the existing social and economic order is "naturalized."
- Capitalism reinforces patriarchal relations, forestalling other ways of knowing the world (e.g., empathy as a mode of attunement).

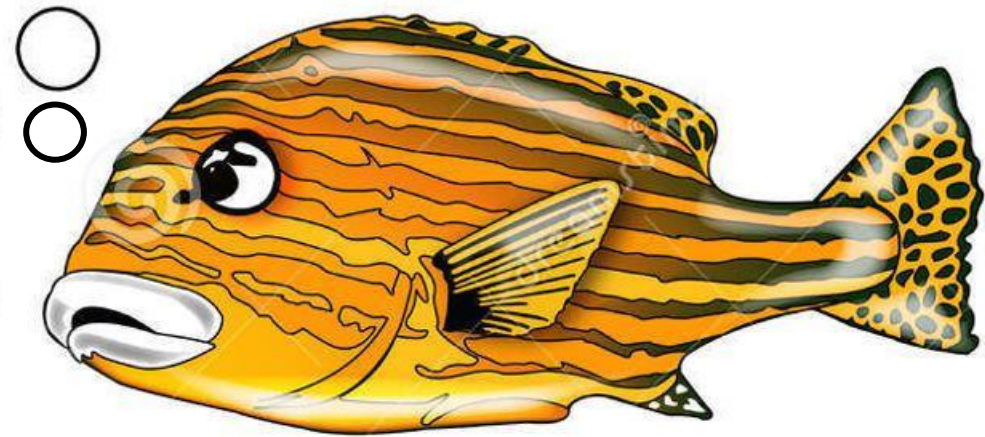
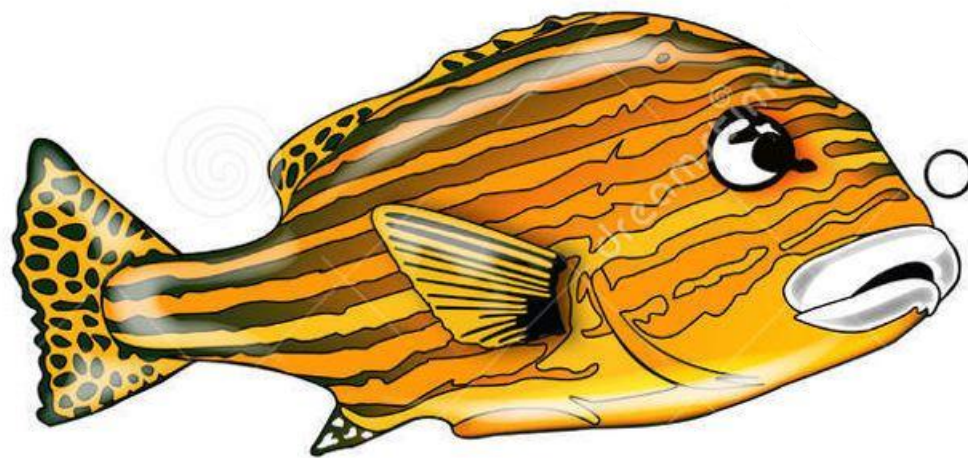
Capitalism

Speciesism



What do you
think of the
water today?

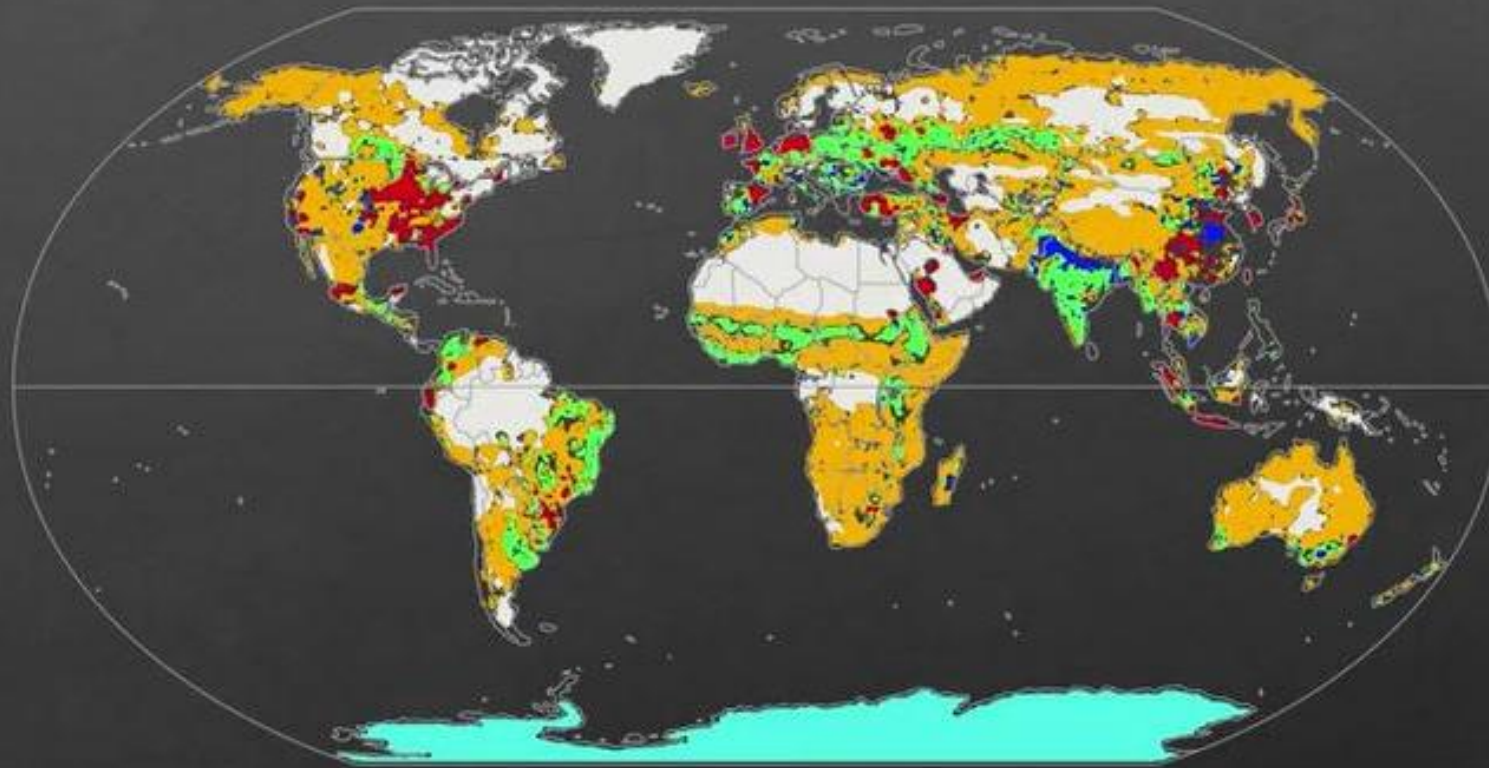










What is
water?

Speciesism –A Global, Totalitarian System for Confining, Controlling, Reproducing, and Exterminating Nonhuman Animals





Livestock Production Systems

- | | | |
|---|---|---|
|  Mixed, Irrigated |  Grazing |  Landless Production |
|  Mixed, Rainfed |  Other |  Arctic |

Source: Food and Agriculture Organization of the United Nations

... the habitat we've given to **livestock** ...

Gestalt switch:

"Environmental crisis"?
Or a crisis of human
supremacy and the
exterminationist regime?

Number of animals killed by humans annually:

80,000,000,000 land mammals, avians, reptiles,
and others.

30,000,000,000,000+ marine animals (fish, shrimp,
dolphins, turtles, squid and octopuses, etc.)



**THINGS ARE NOT ALWAYS
WHAT THEY SEEM**

**THE DEER ISN'T
CROSSING THE ROAD
THE ROAD IS CROSSING
THE FOREST.**

www.piecefit.com

Speciesism:

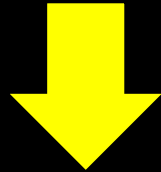
A Mode of Producing Life

A Totalitarian System of Violence

An Economic, Political, Cultural, and
Existential Structure (i.e., a way of
organizing human being-in-the-world).

Speciesism

A way of producing human material life, society, and economy, organized around the exploitation and extermination of other animals.



Capitalist World System

< Systemic Contradictions >

Organic crisis leads to "legitimation crisis," requiring new forms of social practice, and cultural and ideological production, to stabilize the system.

How the Animal System Undermines Conditions of Terrestrial Life

- Mass species extinction and biodiversity loss
- Global warming
- Erosion and degradation of arable land
- Loss of freshwater sources
- Destruction of oceanic life
- Plastics in the seas
- Zoonotic diseases and pandemics

[Sci Adv.](#) 2022 Nov; 8(44): eadd6681.

PMCID: PMC9629715

Published online 2022 Nov 2. doi: [10.1126/sciadv.add6681](https://doi.org/10.1126/sciadv.add6681)

PMID: [36322670](https://pubmed.ncbi.nlm.nih.gov/36322670/)

The infectious disease trap of animal agriculture

[Matthew N. Hayek](#), Conceptualization, Formal analysis, Methodology, Project administration,

Software, Supervision, Validation

► [Author information](#) ► [Article](#)

The infectious disease trap of animal agriculture

Abstract

[Go to:](#) ►

Infectious diseases originating from animals (zoonotic diseases) have emerged following deforestation from agriculture. Agriculture can reduce its land use through intensification, i.e., improving resource use efficiency. However, intensive management often confines animals and their wastes, which also fosters disease emergence. Therefore, rising demand for animal-sourced foods creates a “trap” of zoonotic disease risks: extensive land use on one hand or intensive animal

Science Advances (2022)

[nature](#) > [news explainer](#) > [article](#)

NEWS EXPLAINER | 20 November 2024

Why a teenager's bird-flu infection is ringing alarm bells for scientists

A strain of avian influenza is showing signs of adaptation to human hosts, but there is no evidence that it can transmit from person to person.

Three-quarters of all emerging diseases are zoonotic in origin

“The livestock sector [is] one of the **two or three of most significant contributors** to the most serious environmental problems, at every scale from local to global ... [including] land degradation, climate change and air pollution, water shortage and water pollution and loss of biodiversity.”

--Livestock's Long Shadow (FAO, 2006)

“Livestock production may have a bigger impact on the planet than anything else.”

--Time magazine

Livestock's Long Shadow (2006):
Greenhouse Gases from Animal Agriculture

37% of all methane emissions (20x the GWP of CO₂)

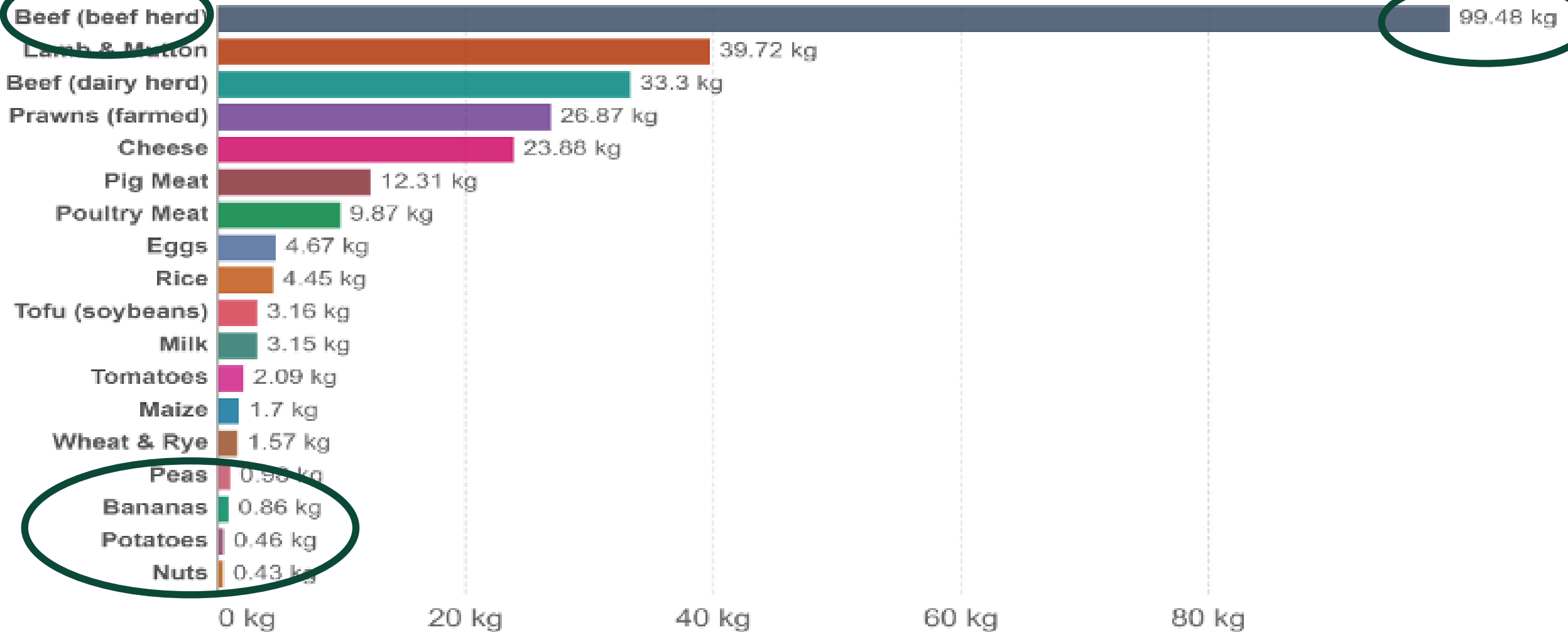
65% of all nitrous oxide emissions (300x the GWP of CO₂)

Animal agriculture responsible for up to 30% of global greenhouse gases--greater than the transportation sector.

-- *Nature*, 2021

Greenhouse gas emissions per kilogram of food product

Emissions are measured in carbon dioxide equivalents (CO₂eq). This means non-CO₂ gases are weighted by the amount of warming they cause over a 100-year timescale.



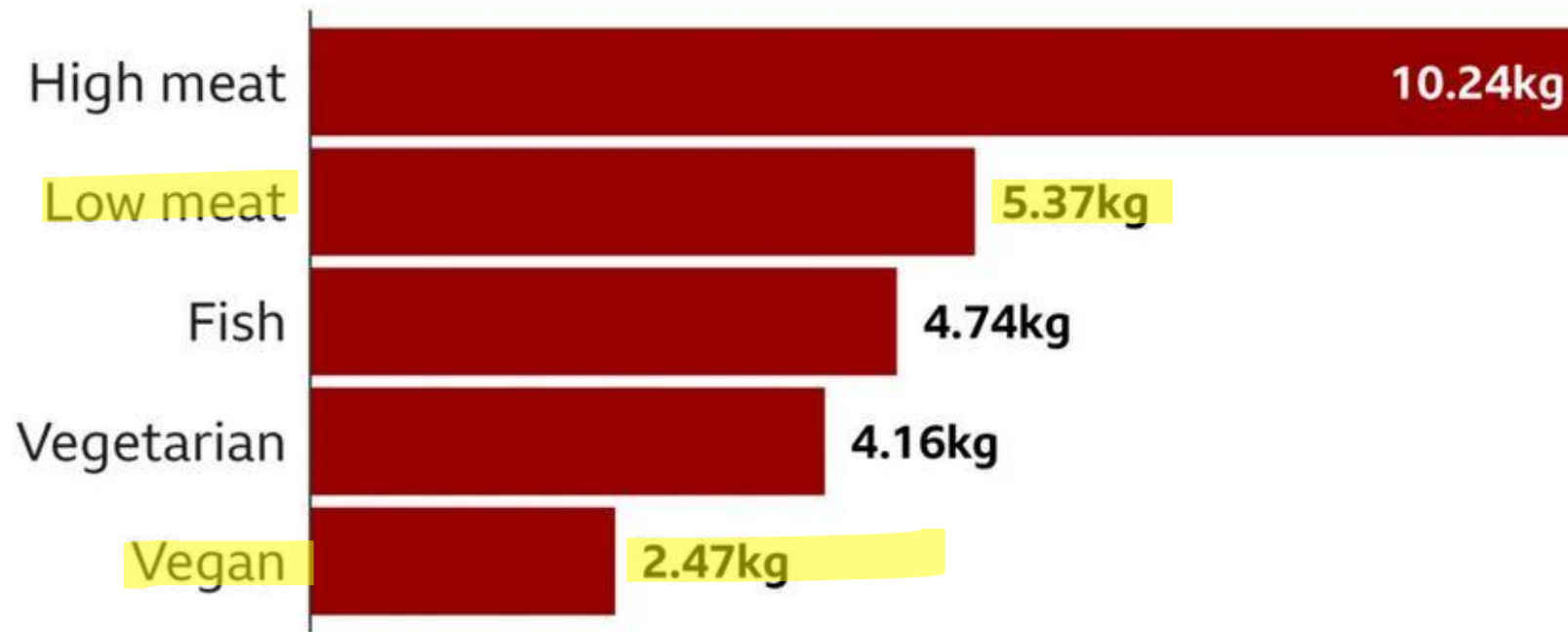
Source: Poore, J., & Nemecek, T. (2018). Reducing food's environmental impacts through producers and consumers.

Note: Greenhouse gases are weighted by their global warming potential value (GWP100). GWP100 measures the relative warming impact of one molecule of a greenhouse gas, relative to carbon dioxide, over 100 years.

OurWorldInData.org/environmental-impacts-of-food • CC BY

Eating meat creates more greenhouse gases

How much carbon dioxide do different types of diet produce per person* each day?



*Based on an adult eating 2,000 calories a day

Source: LEAP Project/Nature Foods



LEAP study, reported in BBC (July 2023)

After the UN Food and Agriculture Organization published *Livestock's Long Shadow* in 2006:

"Scientists who had worked on the original report **“were censored, sabotaged, undermined and victimised for more than a decade**--as punishment for writing “about the hugely damaging contribution of methane emissions from livestock to global heating.”

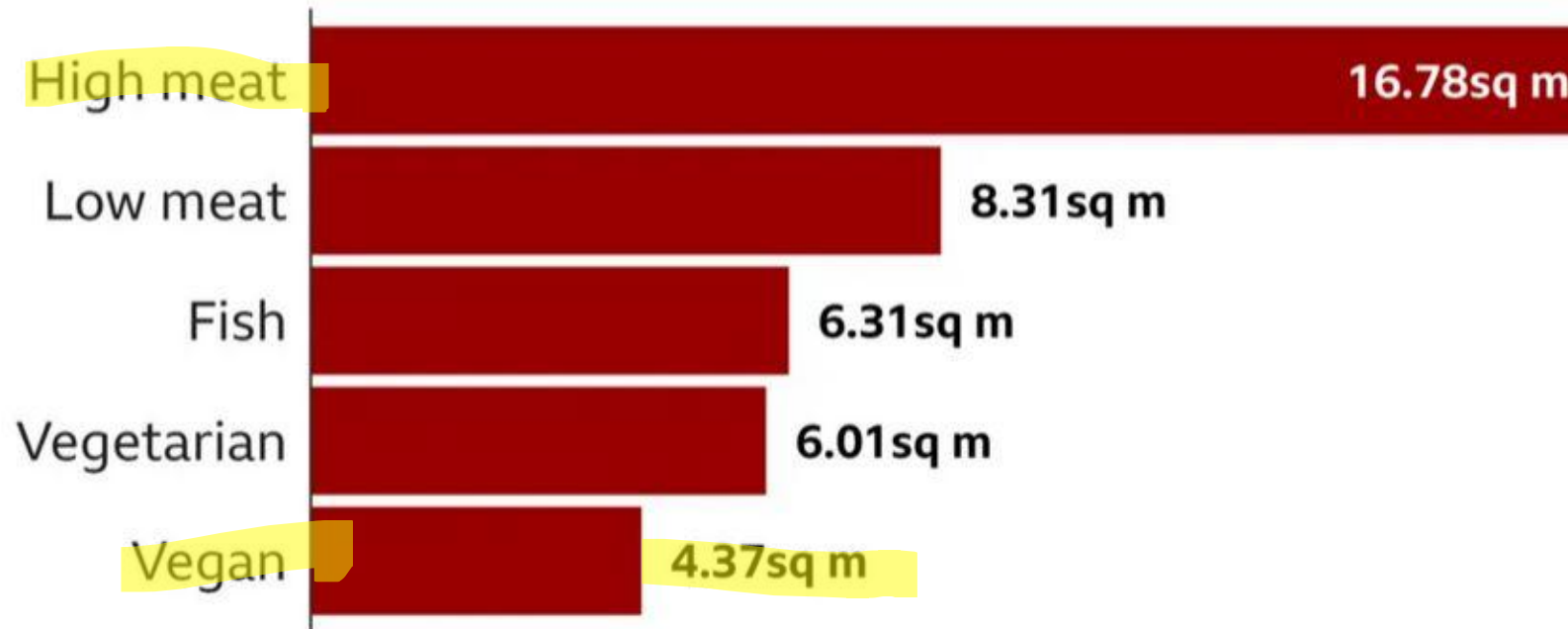
-- *Guardian* (2023)

Inefficiencies of the Animal System

- Land Use
- Water Use
- Fossil Fuel Use
- Caloric/metabolic inefficiency
- Pollution/toxic waste

Meat production uses lots of land

How much land is needed to support a person on different types of diet* each day?



*Based on an adult eating 2,000 calories a day

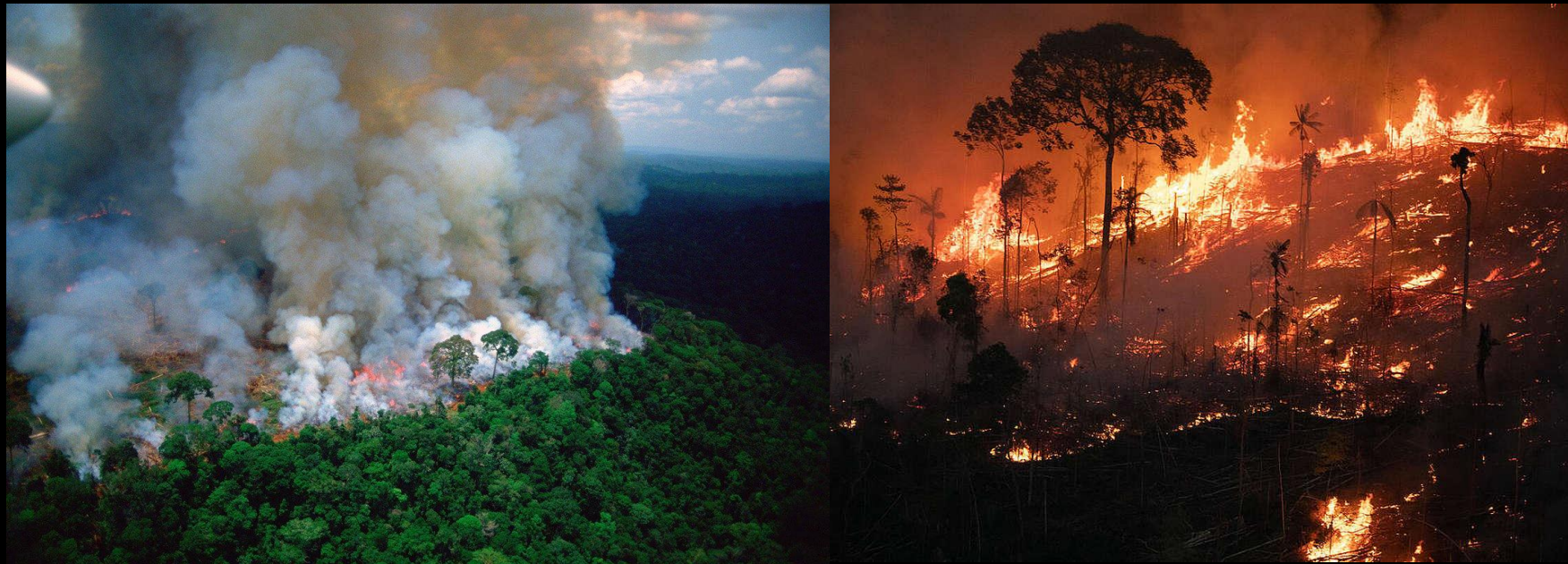
Source: LEAP Project/Nature Foods



Deforestation and Biodiversity Losses

“40 percent of all the rainforests have been cleared or burned down in the last 40 years, mostly for cattle pasture.”

(World Rainforest Report, 2004)





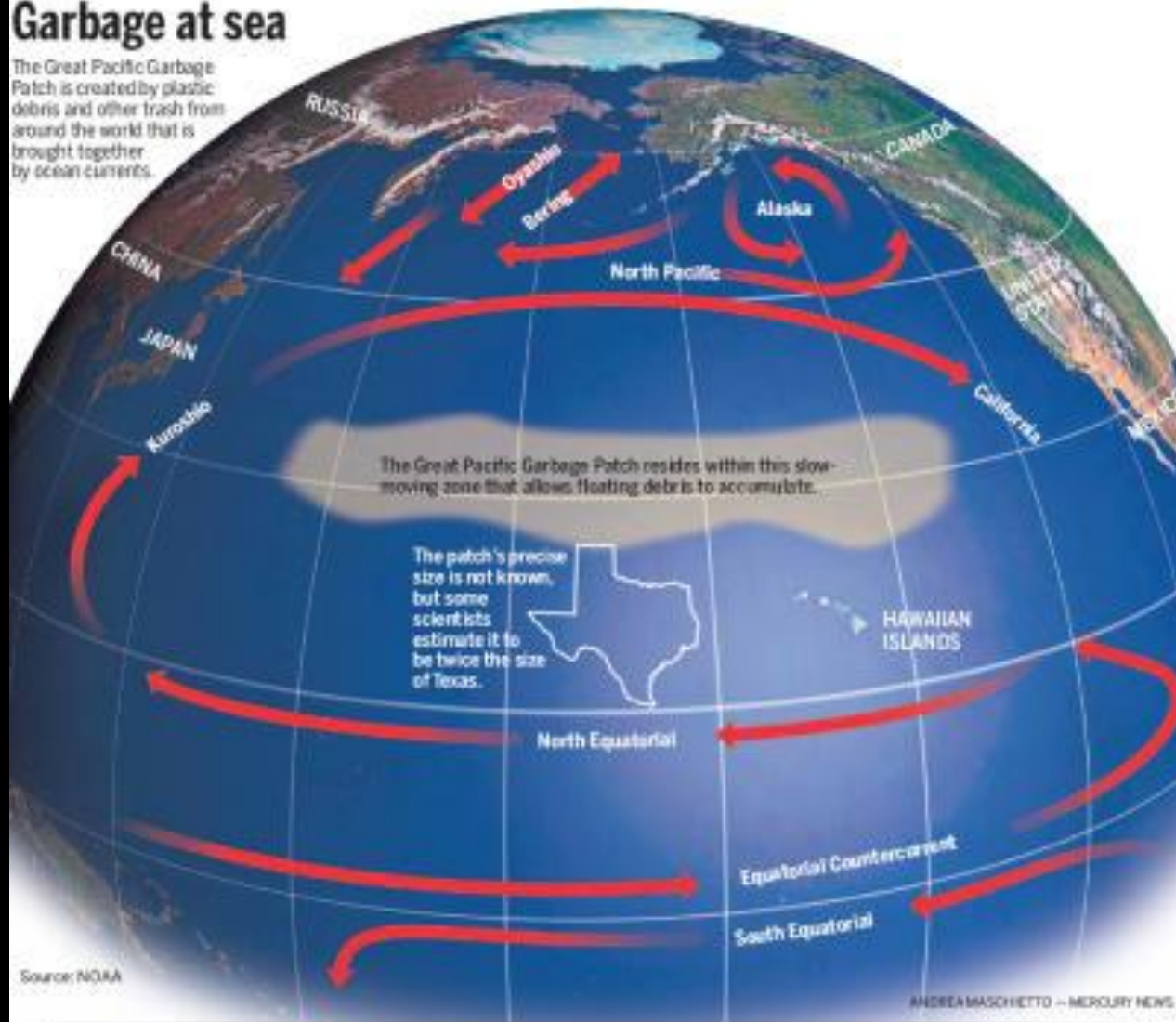
US animal agriculture uses 34-76 trillion gallons of fresh water annually.

Pimental, "Water Resources: Agricultural and Environmental Issues," *BioScience* (2004)

Barber, "Summary of Estimated Water Use in the United States in 2005," U.S. Geological Survey (2005)

Garbage at sea

The Great Pacific Garbage Patch is created by plastic debris and other trash from around the world that is brought together by ocean currents.



TO LEARN MORE ABOUT THE PACIFIC GARBAGE PATCH, GO TO:

Project Kaisei Homepage:
www.projectkaisei.org

Scripps Seaplex Homepage:
<http://sio.ucsd.edu/Expeditions/Seaplex/>

NOAA Marine Debris Project Homepage:
<http://marinedebris.noaa.gov>

Dumped fishing gear is biggest plastic polluter in ocean, finds report

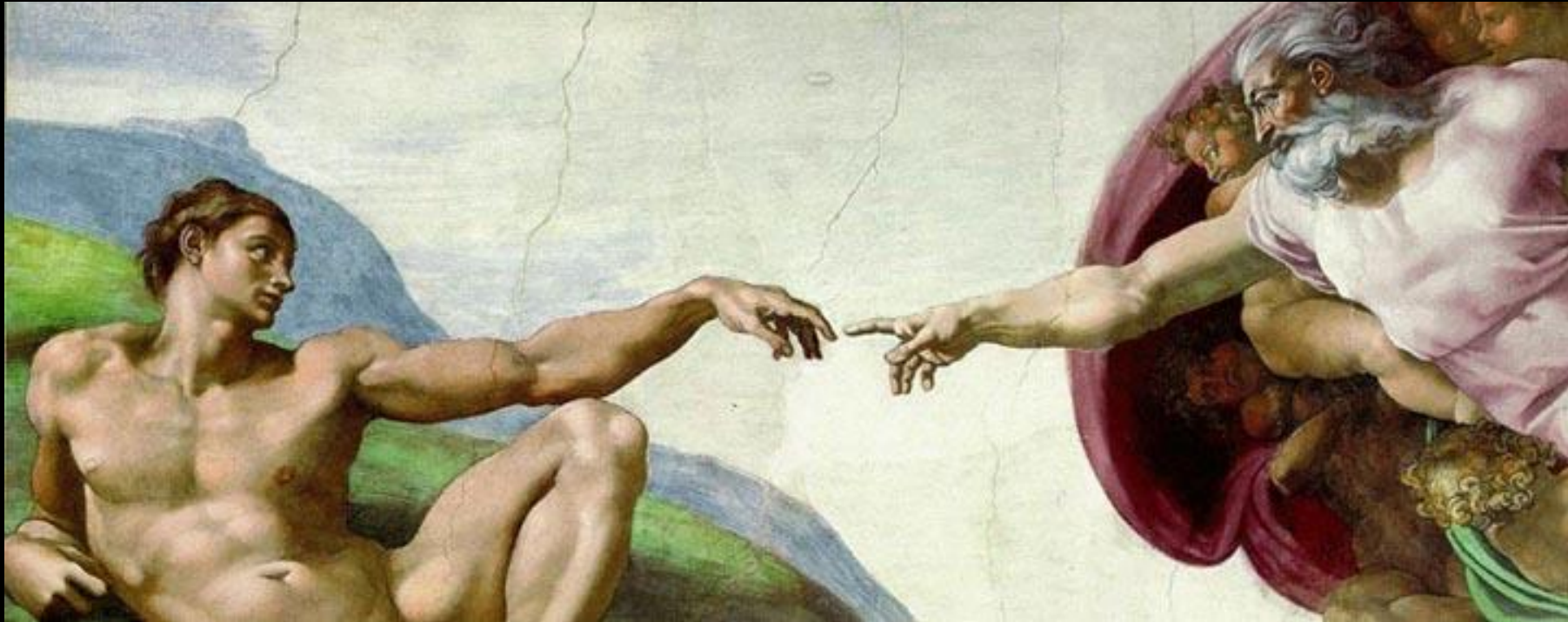
Greenpeace calls for global action over nets, lines and traps that are deadly for marine life

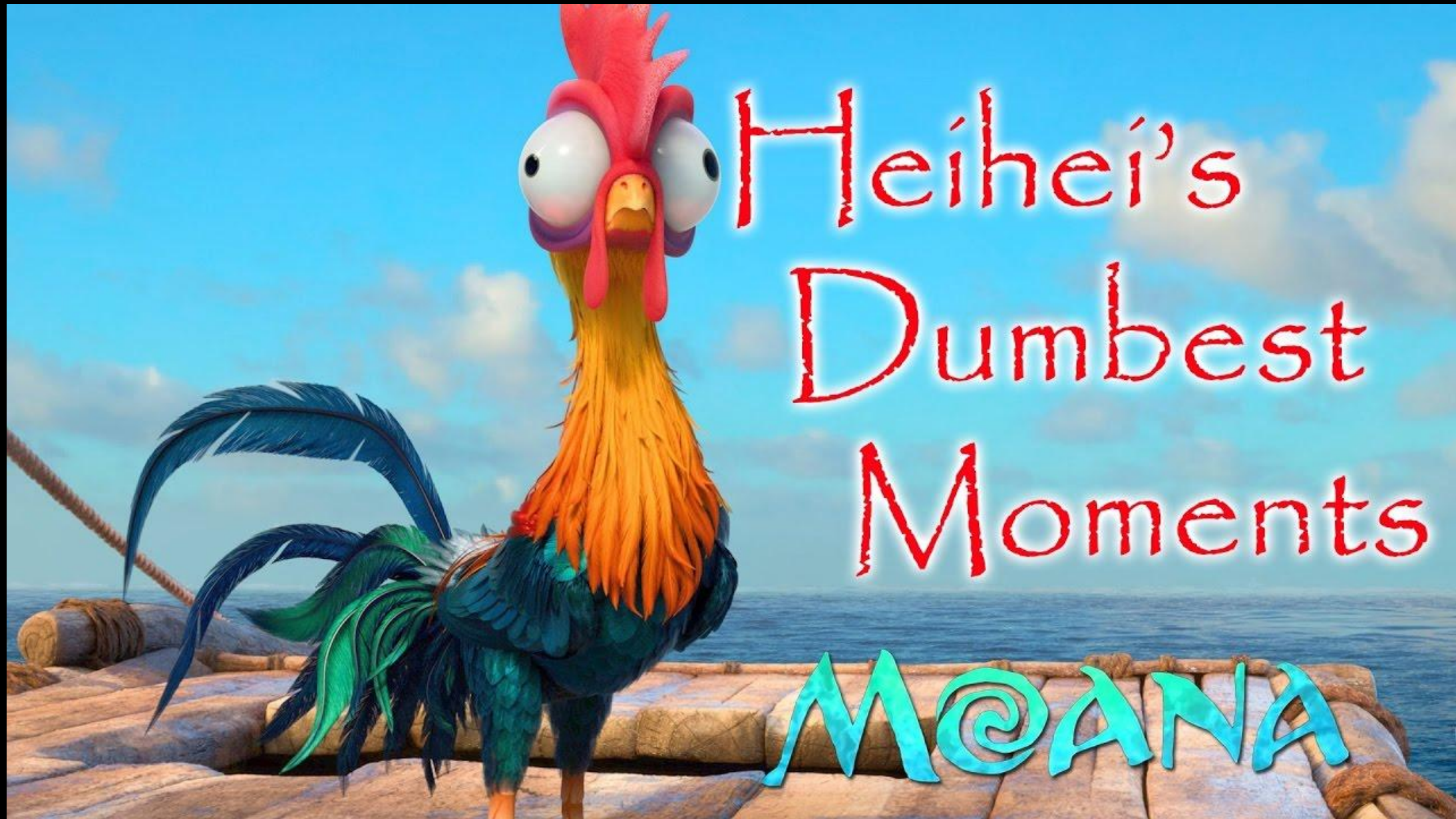


Up to 86% of plastics in the Great Pacific Garbage Patch consists of discarded fishing gear.

But first...a word on ontology.

A foundational dualism:
Human = *Not-Animal*



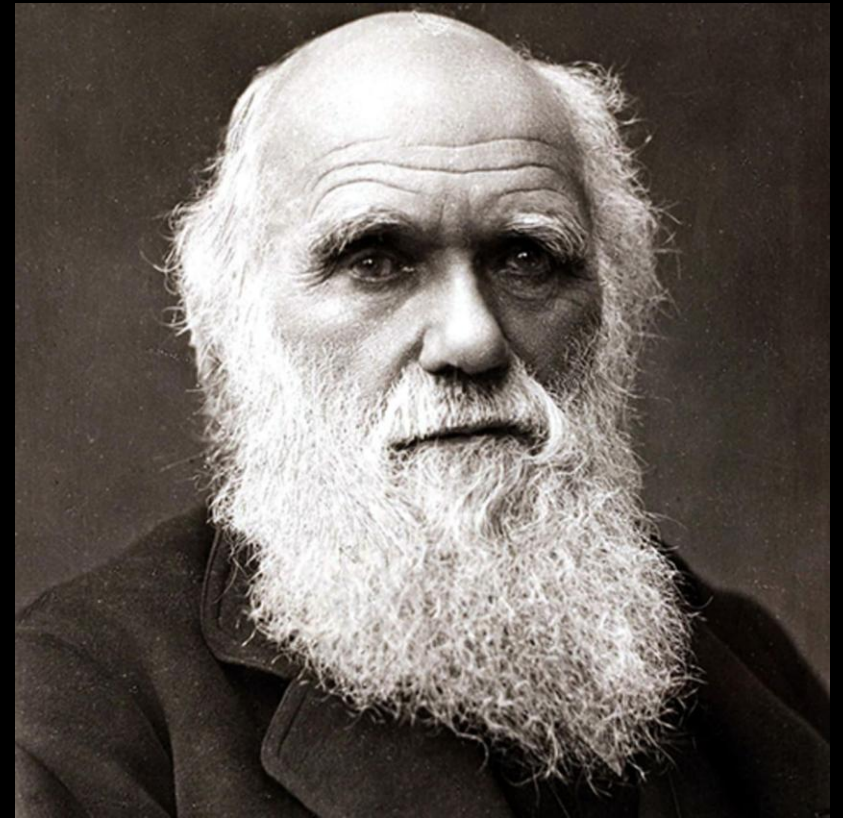


Heihei's
Dumbest
Moments

MOANA

“[T]he difference in mind between man and the higher animals ... certainly is one of degree and not of kind.”

Other animals, too, exhibit “certain high mental powers, such as the formation of general concepts, self-consciousness, etc.”



Charles Darwin (1809-1882)

“[T]he senses and intuitions, the various emotions and faculties, such as love, memory, attention, curiosity, imitation, reason, etc., of which man boasts, may be found”
in other animals as well.

– Charles Darwin

The Descent of Man (1871)

Criteria of *personhood* in the Western tradition

- *Reason

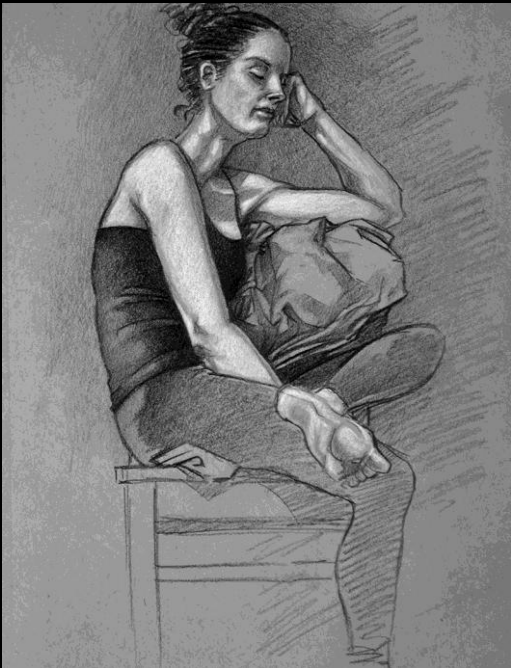
- *Language

- *Freedom (free will and moral autonomy)

But there are other qualities of “personhood”....

- *Consciousness (having a subjective experience of the world)*
- *Intentionality or “directedness” of consciousness*
- *Creative expression*
- *Having a sense of self--of one’s own bodily integrity*
- *Temporality (experiencing time, looking backward or forward in time)*
- *Intelligence: problem-solving, tool use, planning, and so on*
- *Having preferences*
- *Complex emotions (sadness, fear, jealousy, happiness, terror, anxiety)*
- *Joy in embodiment*
- *A capacity for friendship or love*

- *Seeking pleasure*
- *Delight in playing*
- *Concern and Caring for Others*
- *Moral behavior—empathy, reciprocity, altruism*
- *Vulnerability to suffering (pain, trauma, depression, PTSD, grief, etc.)*
- *Mortality (and fear of death)*





SCIENTIFIC AMERICAN

MAY 1, 2017 | 12 MIN READ

The Startling Intelligence of the Common Chicken

Chickens are smart, and they understand their world, which raises troubling questions about how they are treated on factory farms

BY CAROLYNN & "K-LYNN"; L. SMITH & SARAH L. ZIELINSKI





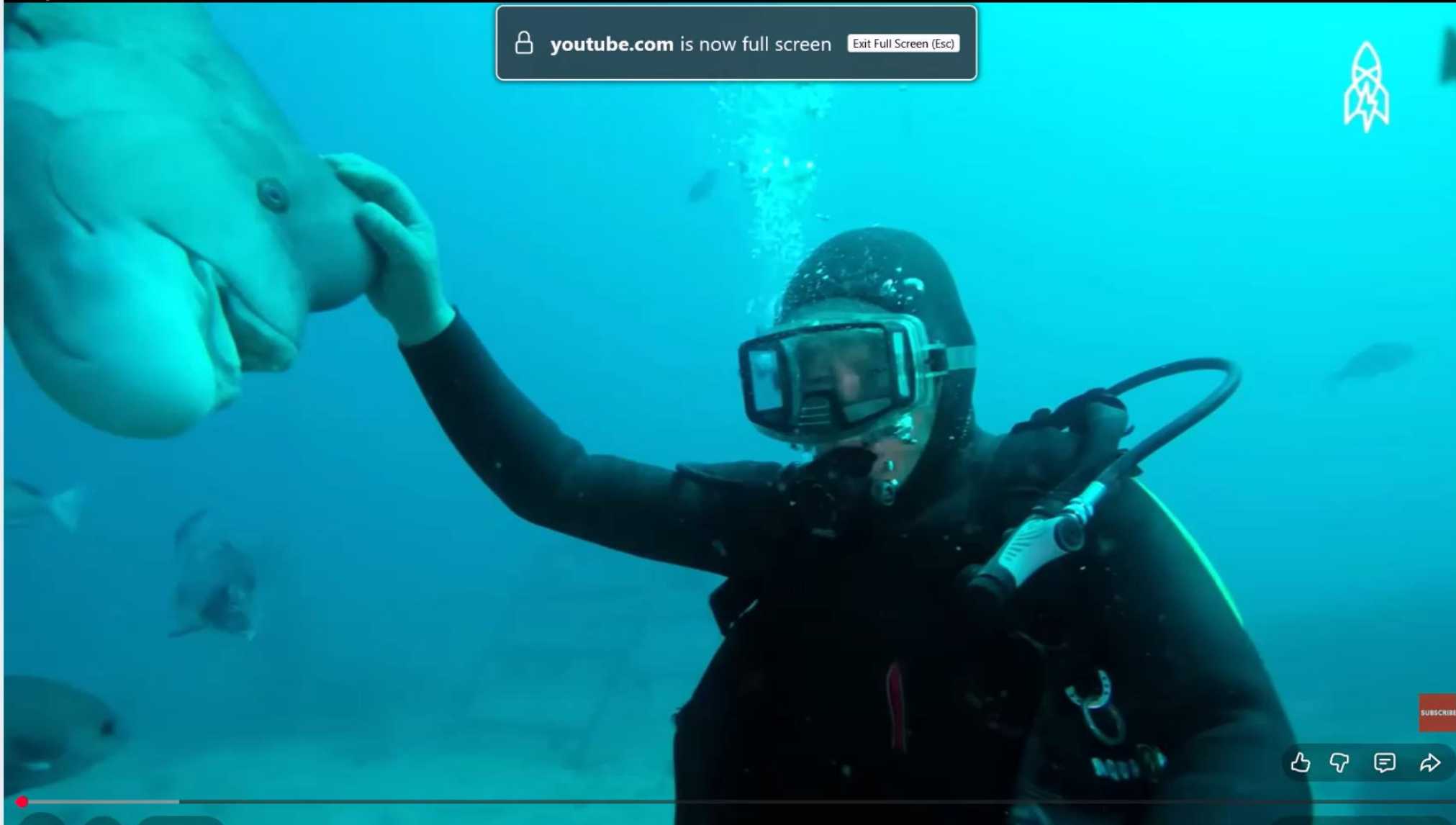
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@433

Aquatic Affection: How a Scuba Diver Found a Good Friend Under the Sea

youtube.com is now full screen [Exit Full Screen \(Esc\)](#)



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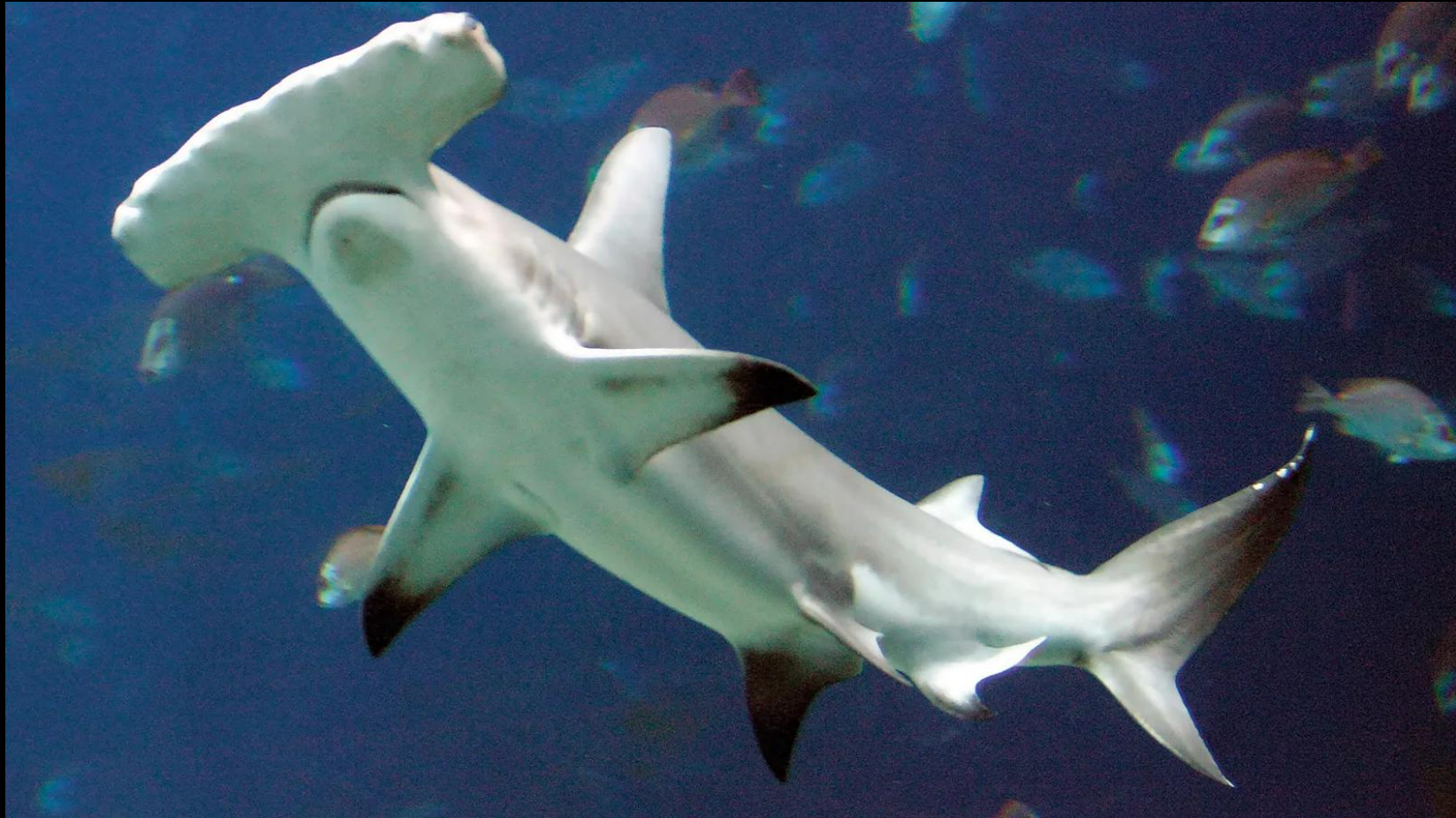
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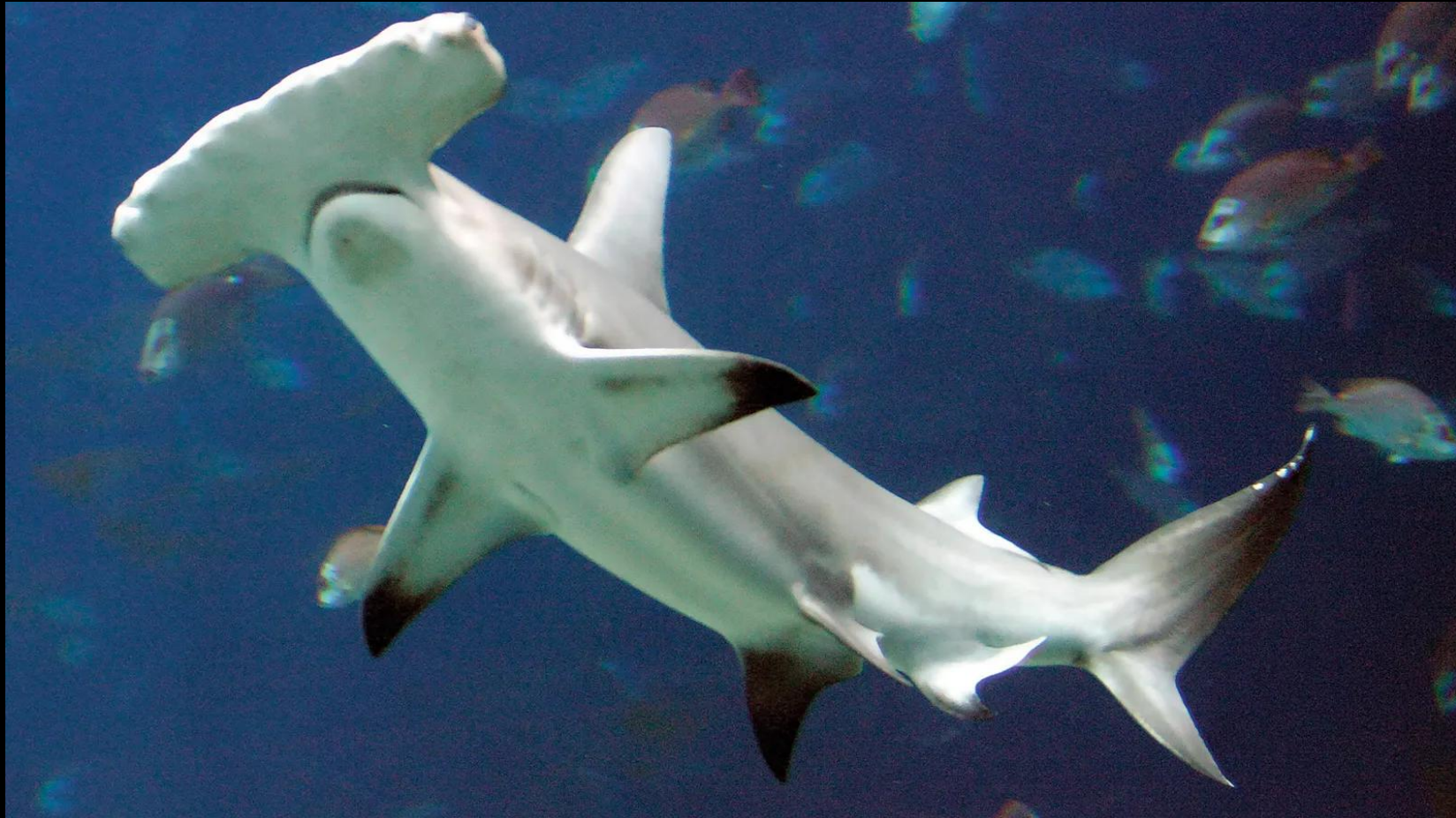
...But we do not treat other animals as “someones” or persons.



Herrschaft, a political and social relation in which members of a powerful group dominate or exploit members of a weaker, subordinated group.



How many **humans** are killed by sharks each year?
How many **sharks** are killed by humans each year?



Humans killed by sharks = 10-15.

Sharks killed by humans = 100,000,000.







Meet Your Meat (2002)

**Systems of Domination or Hegemony
Require Modes of “Legitimation”**

*Culture, science, moral beliefs, etc., come to reflect
and reinforce the dominant structure.*



By ARIEL KAMINER

DEFENDING YOUR DINNER: AN OPEN CONTEST FOR HUNGRY ETHICISTS

Ethically speaking, vegetables get all the glory. In recent years, vegetarians — and to an even greater degree vegans, their hard-core inner circle — have dominated the discussion about the ethics of eating. From the philosopher Peter Singer, whose 1975 volume “Animal Liberation” galvanized an international movement, to the novelist Jonathan Safran Foer, who wrote the 2009 best seller “Eating Animals,” those who forswear meat have made the case that what we eat is a crucial ethical decision. To be just, they say, we must put down our cheeseburgers and join their ranks.

In response, those who love meat have had surprisingly little to say. They say, of course, that, well, they love meat or that meat is deeply ingrained in our habit or culture or cuisine or

READERS AND EATERS: Tell us why it's ethical to eat meat.

RULES: This is a very specific contest. Don't tell us why you like it or why organic trumps local or why it's yours to choose. Just tell us why it's ethical to eat meat.

GUIDELINES: Send written entries no more than 600 words to ethicist@nytimes.com. Entries are due by April 8; no late submissions will be considered.

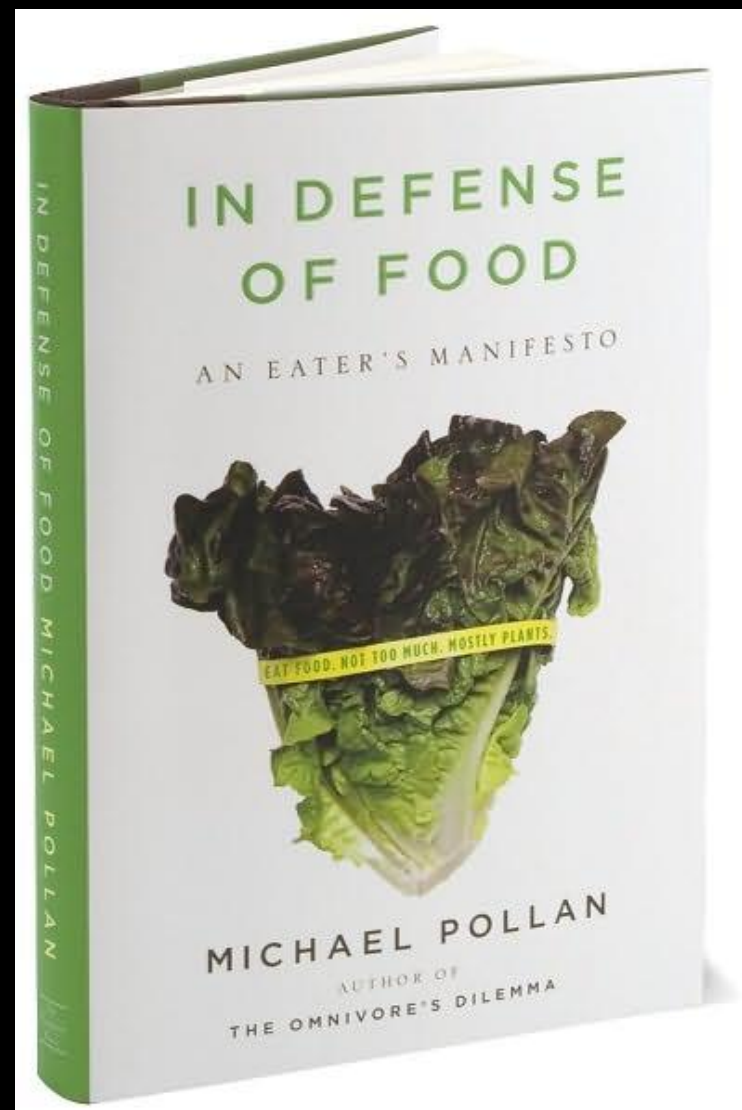
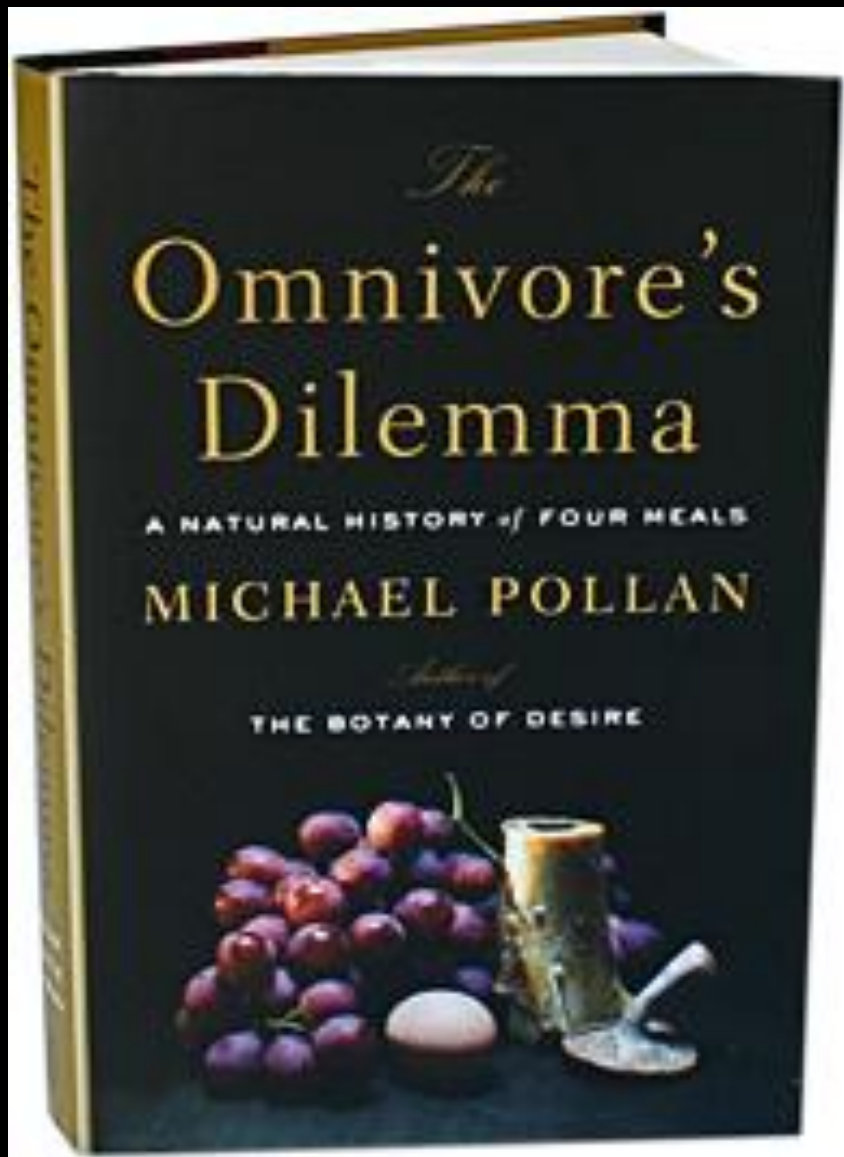
THE PRIZE: The winner or winners will be published in an upcoming issue of The New York Times.

**READERS AND EATERS:
Tell us why it's ethical
to eat meat.**

case for this most basic of gray practices. If you can make it past our judges, we'll put your name in lights (or at least in print). So get thinking. And get writing. You have two weeks and 600 words in which to make sense of our species' entire dietary history. *Bon appétit!*

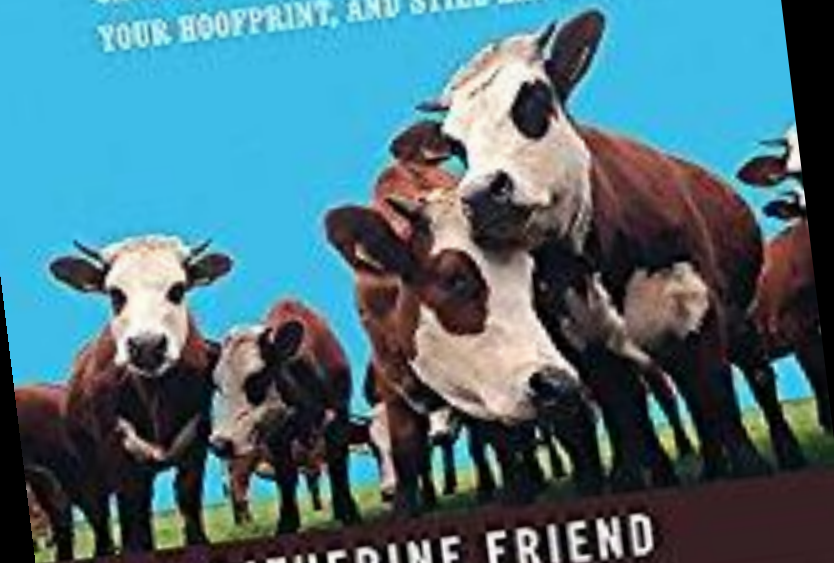
THE JUDGES: To make it challenging, we have assembled a veritable murderer's row of judges — some of the most influential thinkers to question or condemn the eating of meat

“Legitimation Crisis”



THE
**COMPASSIONATE
CARNIVORE**

OR, HOW TO KEEP ANIMALS HAPPY,
SAVE OLD MACDONALD'S FARM, REDUCE
YOUR HOOFPRINT, AND STILL EAT MEAT



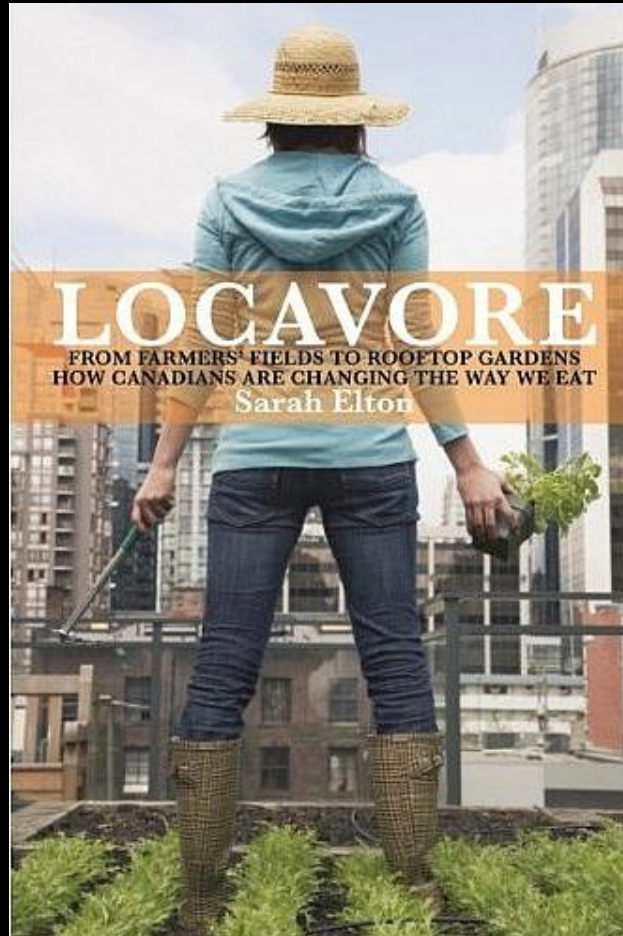
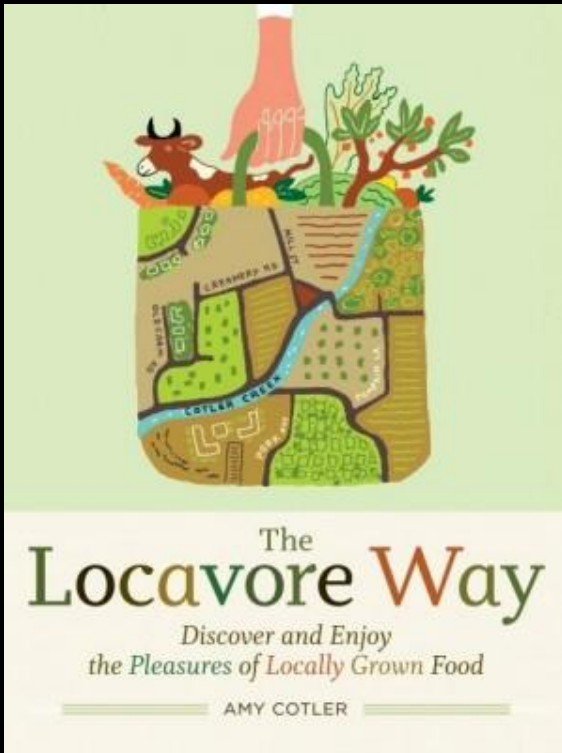
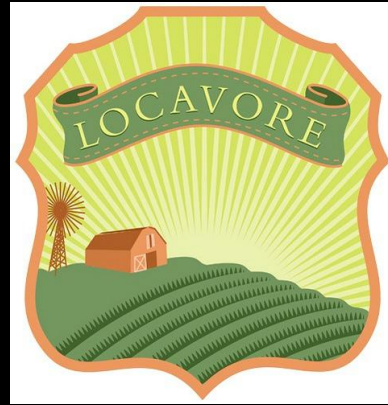
CATHERINE FRIEND
Author of *HIT BY A FARM*

the
Ethical Meat
handbook



complete home butchery,
charcuterie and cooking for
the conscious omnivore

Meredith Leigh



A hearty helping of
Animal Compassion
with every order.

365
Natural & Organic
Poultry
STEP 4
global animal



MONTEREY BAY AQUACULTURE
Seafood
WATER



Nonhuman animals are seen to consent to human exploitation, enslavement, and death.

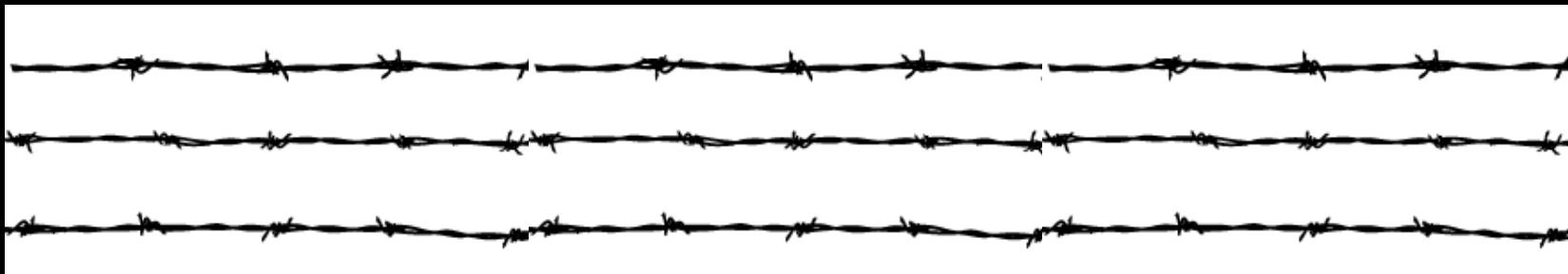


Animal agriculture is...a “partnership,” a “relationship...of mutuality and respect.”

-- Lierre Keith

“Mutualism and symbiosis”

-- Michael Pollan



“There is a community of interest, and a relation of friendship, between master and slave.”

-- Aristotle

“Animals have been *good friends* to us throughout the millennia” -- Kathy Rudy.



“Partnership” and “Mutual Respect”



Brute Force: On Small Farms, Hoof Power Returns

Artisans argue that animals can be trained to board and feed than any machine. They also run on the ultimate resource: grass. They don't need spare parts, and they don't need fossil fuels," Mr. Ciotola

They are literally lighter on the machines.

They would have left ruts a foot deep on the road," Mr. Ciotola noted.

In the past, oxen or horses aerate the soil with their hooves as they go, pressing down fertile microbial layers. And

They do not run on fossil fuel, or need spare parts.

They do benefit, animals leave behind natural fertilizer.

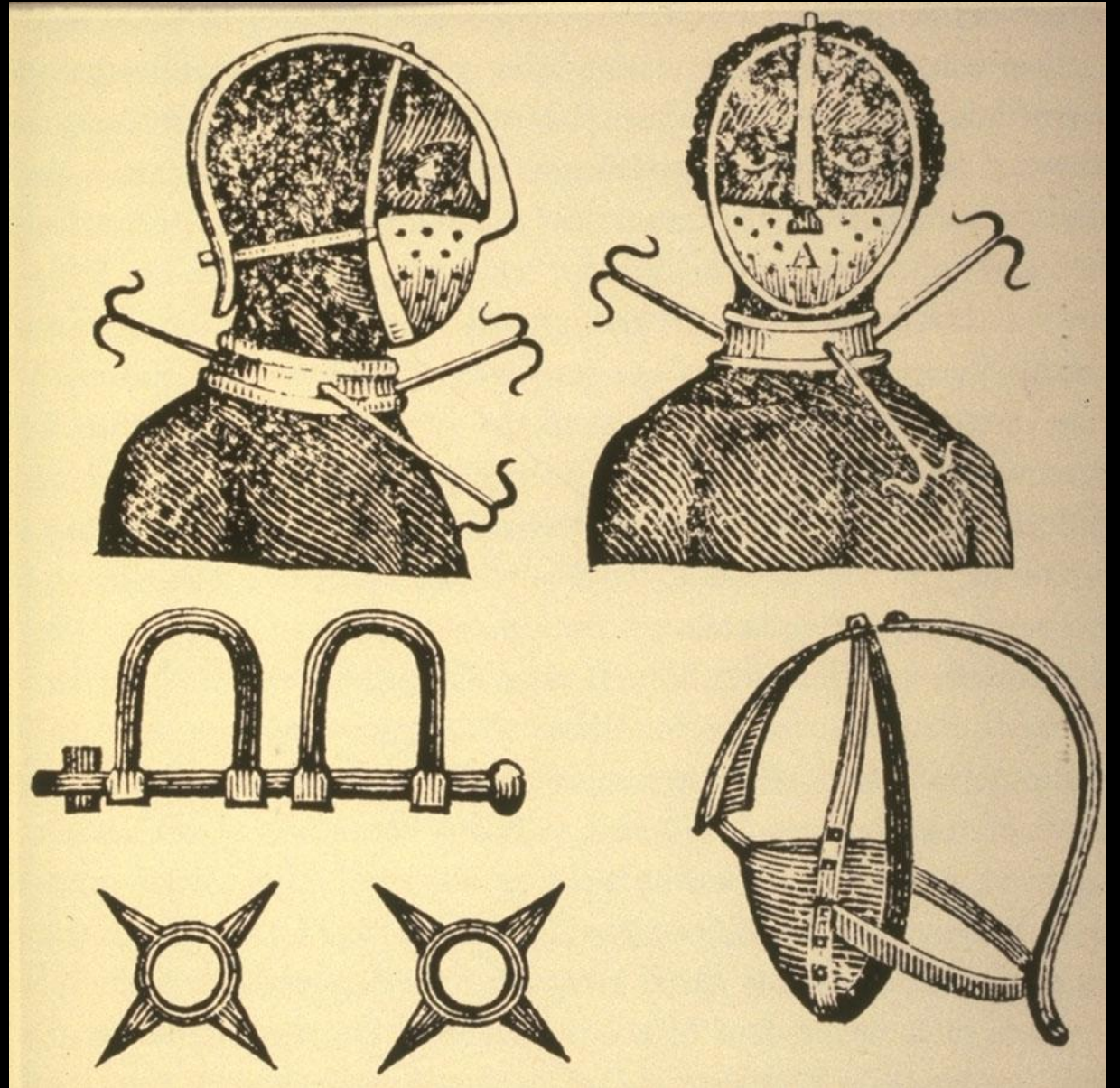
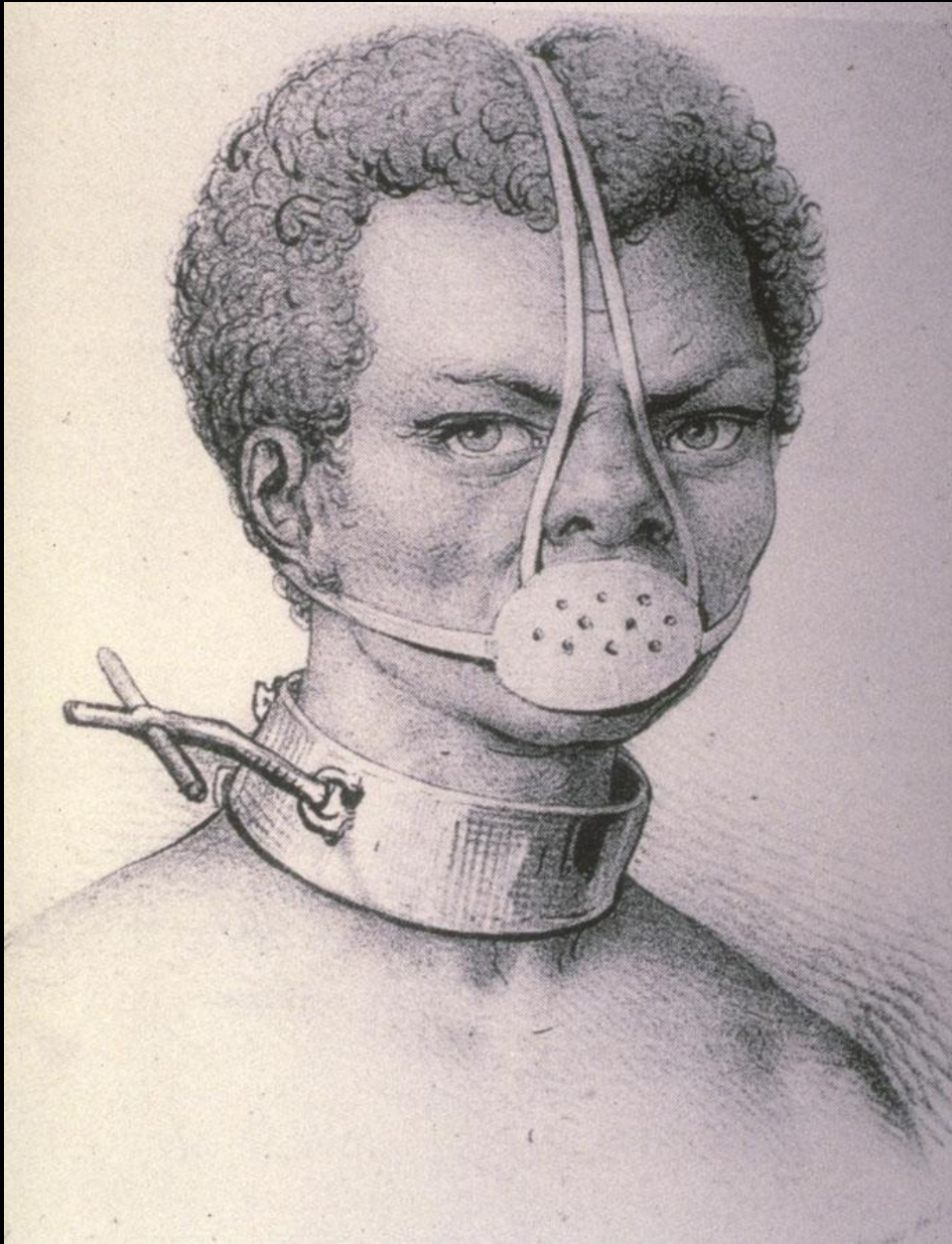
Mr. Fisher, whose Natural Roots Farm in Northampton, Mass., sells vegetables exclusively with horsepower, is getting record numbers of apprentices for his program. "There's an incredible hunger for this

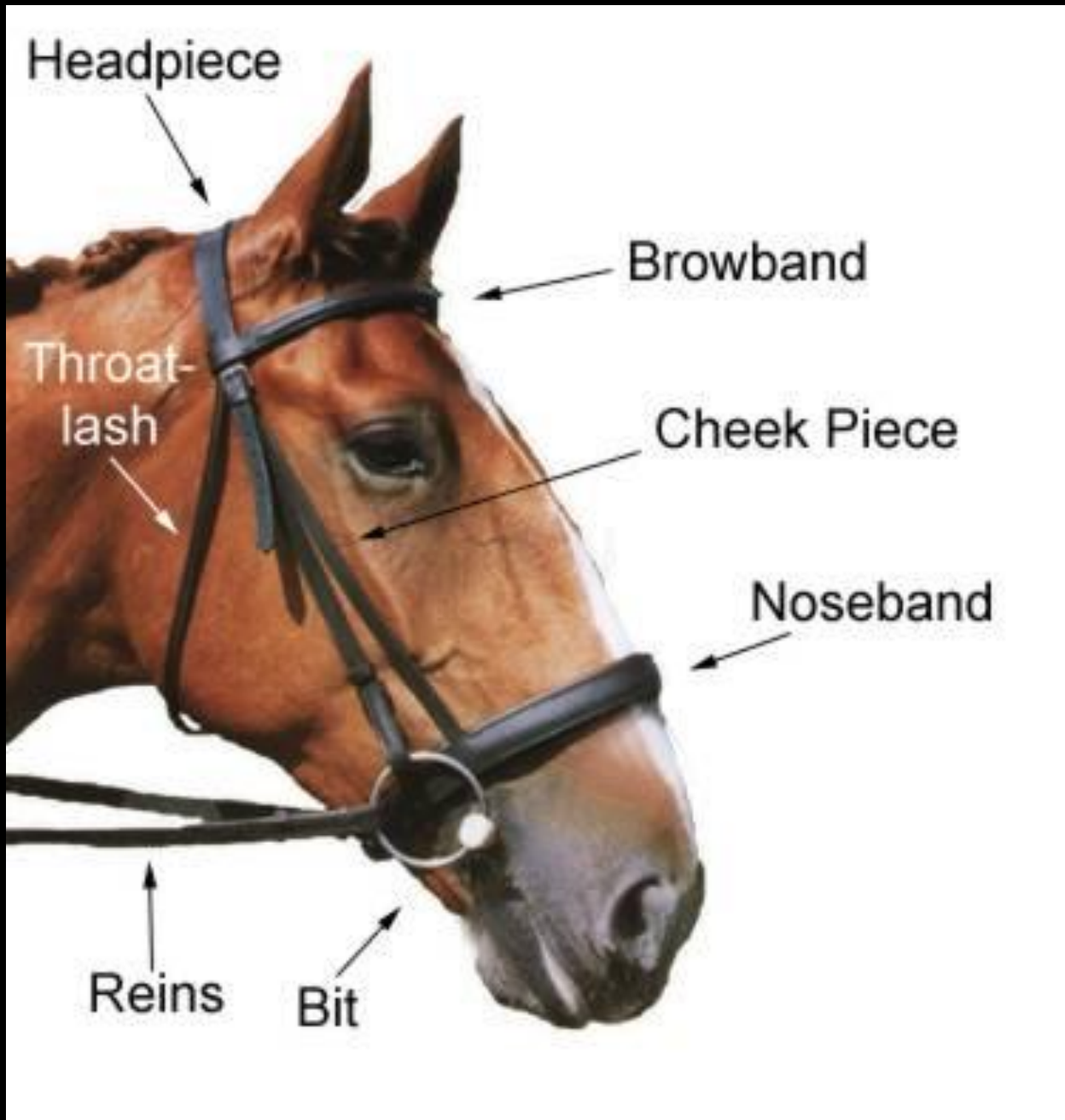


“A slave is a living tool.” – *Aristotle*

Animals are “*four-legged tools*” — “They’re human property, not just legally but *biologically*.”

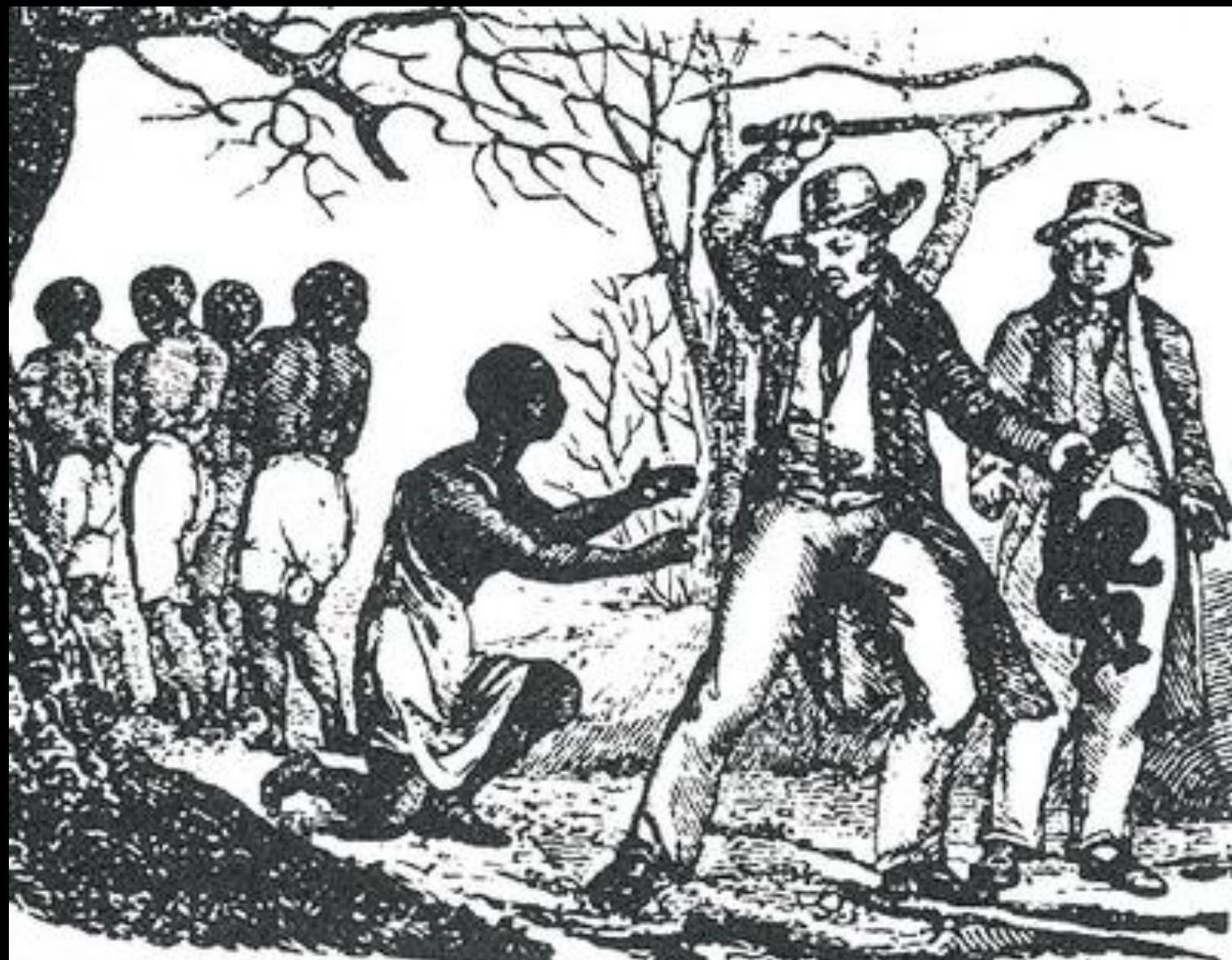
– *Barbara Kingsolver*





















 **International
Animal Rescue**
internationalanimalrescue.org

“Liberty has been the heaviest curse to the slave,
when given too soon.”

-- Thomas Dew (1832)

“Liberation is the last thing such a creature wants.”

-- Michael Pollan (2006)

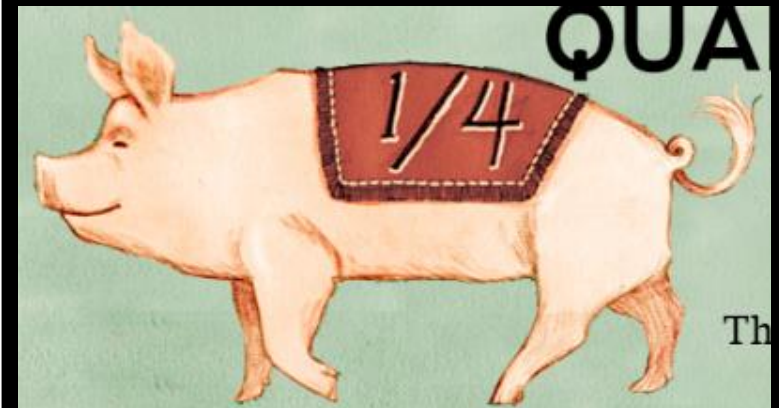
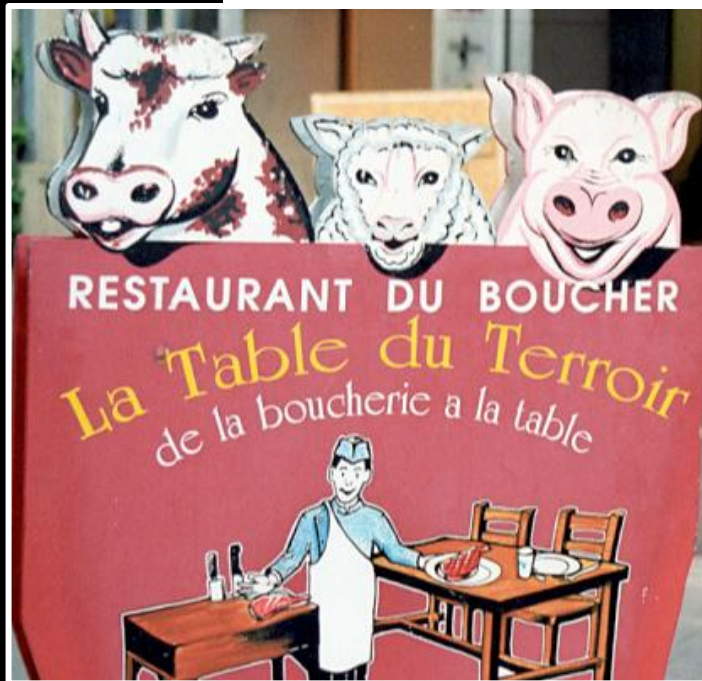
Happy Slaves

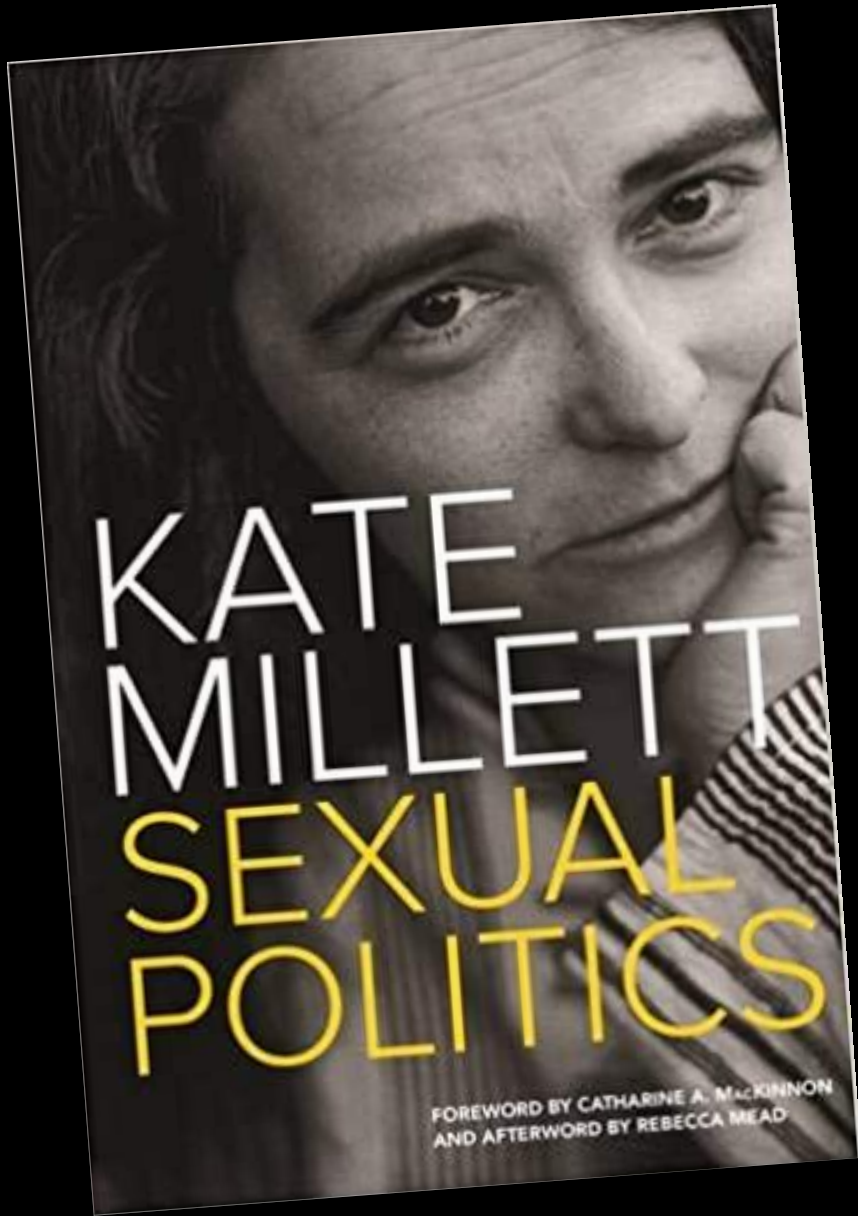


by Rev. E. W. Warren

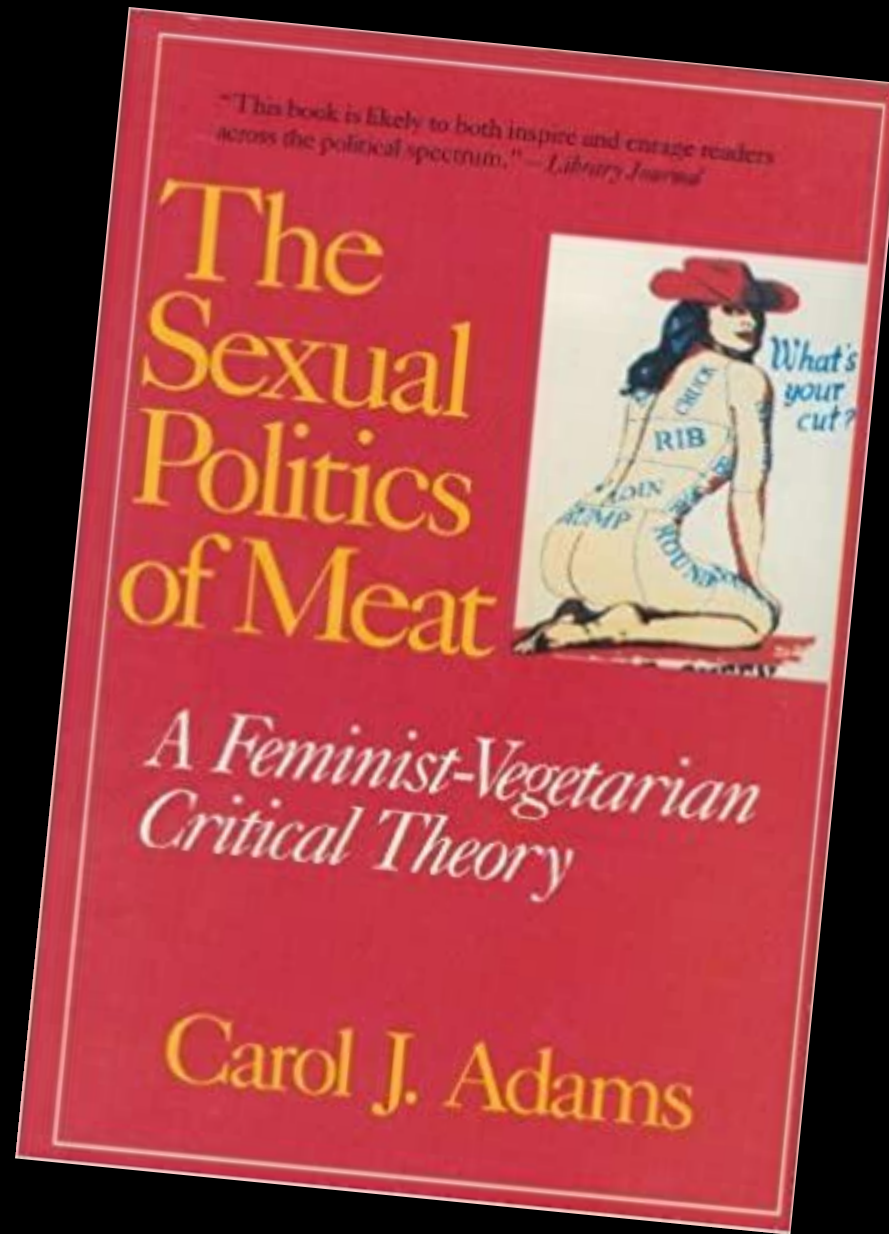


Animals are happy to be killed for us....





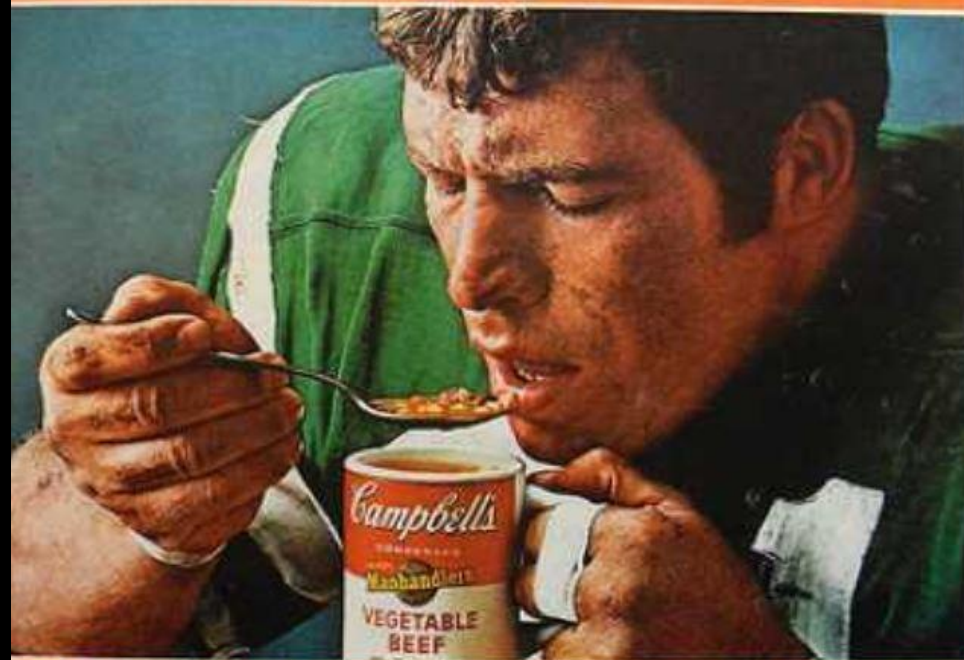
1970



1990



How do you handle
a hungry man?



The Manhandlers.

Campbell's Vegetable Beef is
one of them. And it's one of Gerry Fisher's
favorites. This soup is built for a big, hungry man.
Tender, juicy beef, good garden vegetables and a hearty
beef stock. M'm! M'm! Good!



WOMEN WILL LOVE YOU.
MEN WILL WANT TO BE YOU.

FARM ANIMALS
WILL
FEAR YOU.

ALL WE DO IS

Q

**BARBEQUES
GALORE**





Women and Nonhuman Animals are Both "Consumables" Under Patriarchy

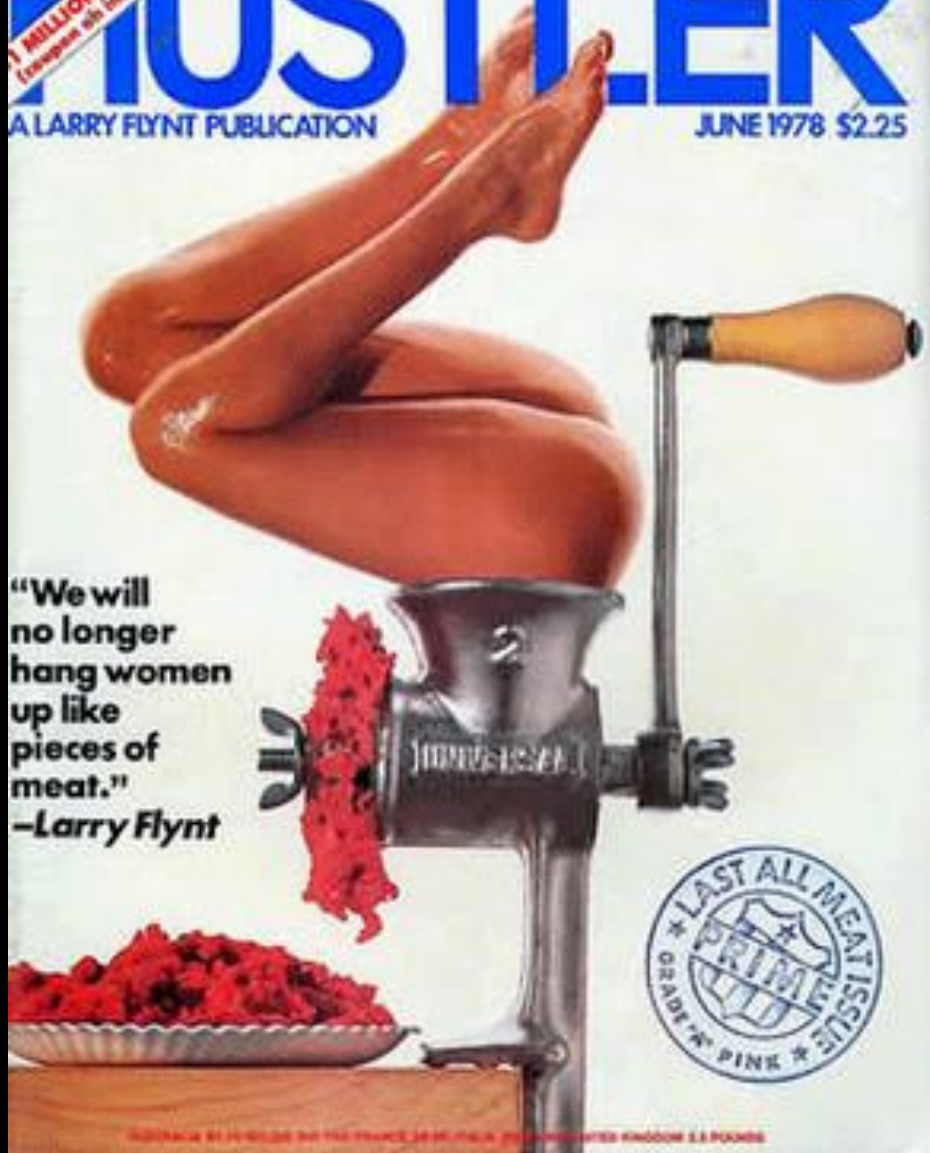
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A LARRY FLYNT PUBLICATION

JUNE 1978 \$2.25

"We will no longer hang women up like pieces of meat."
 -Larry Flynt



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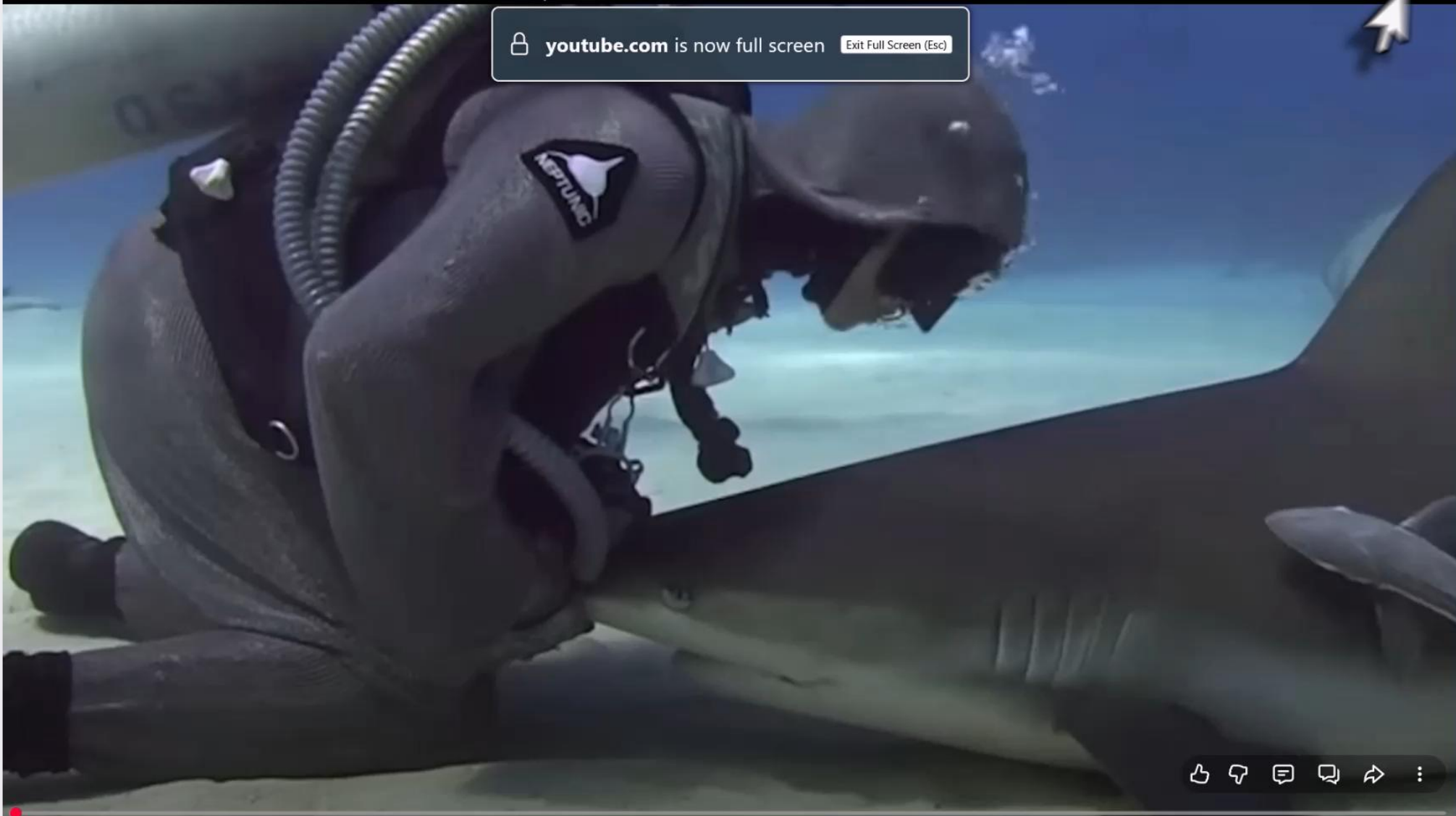
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Humans Hugging Other Animals



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Delacroix, "Liberty Leading the People" (1830)



Kiewert, "Evolution of Revolution" (2012)

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