

The salmon of knowledge

Richard Dawkins and the spiritual
value of nature





THE PRINCESS OF THE MOUNTAIN



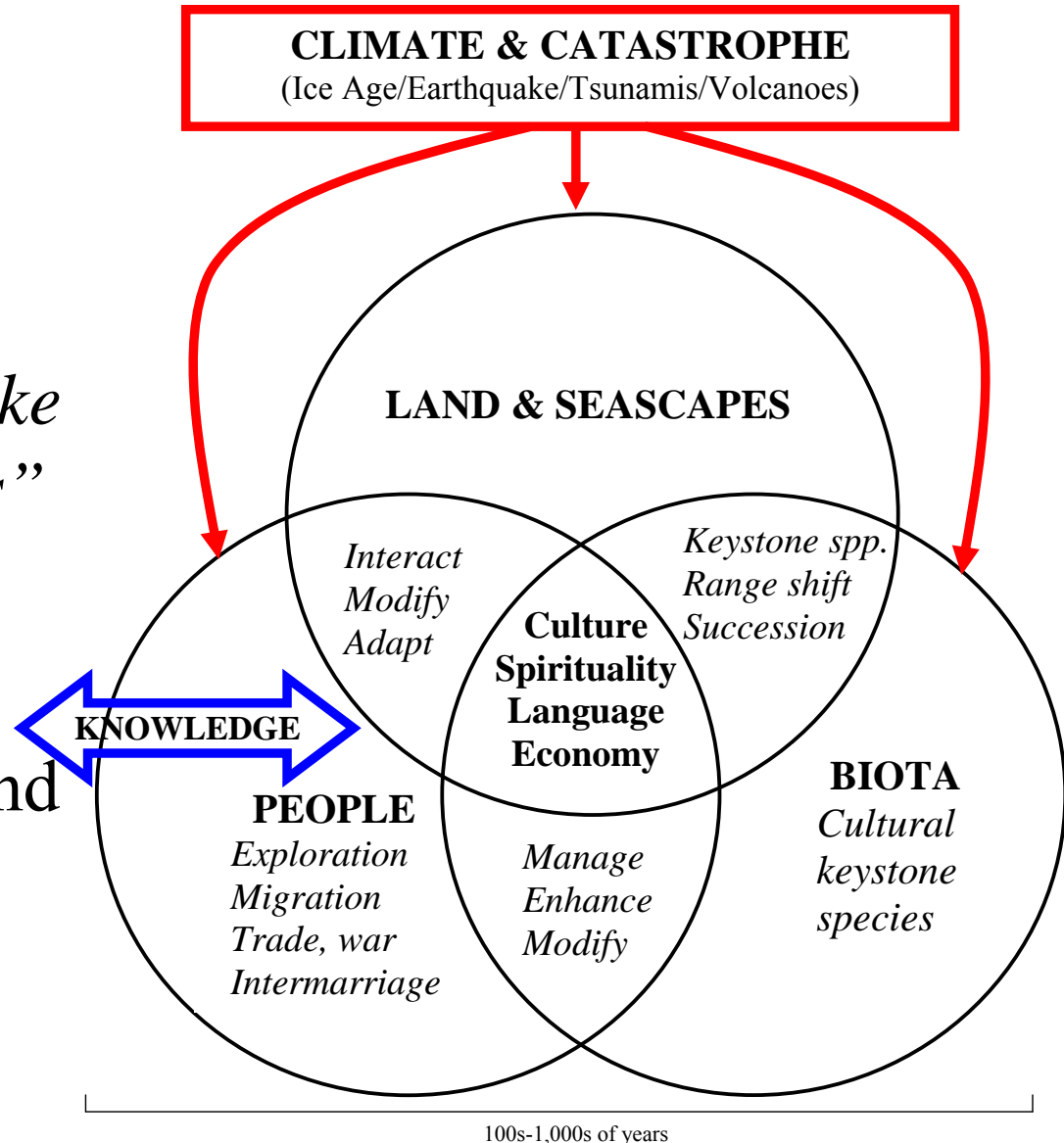
Knowledge is encoded in many ways



The First 'Inconvenient Truth'

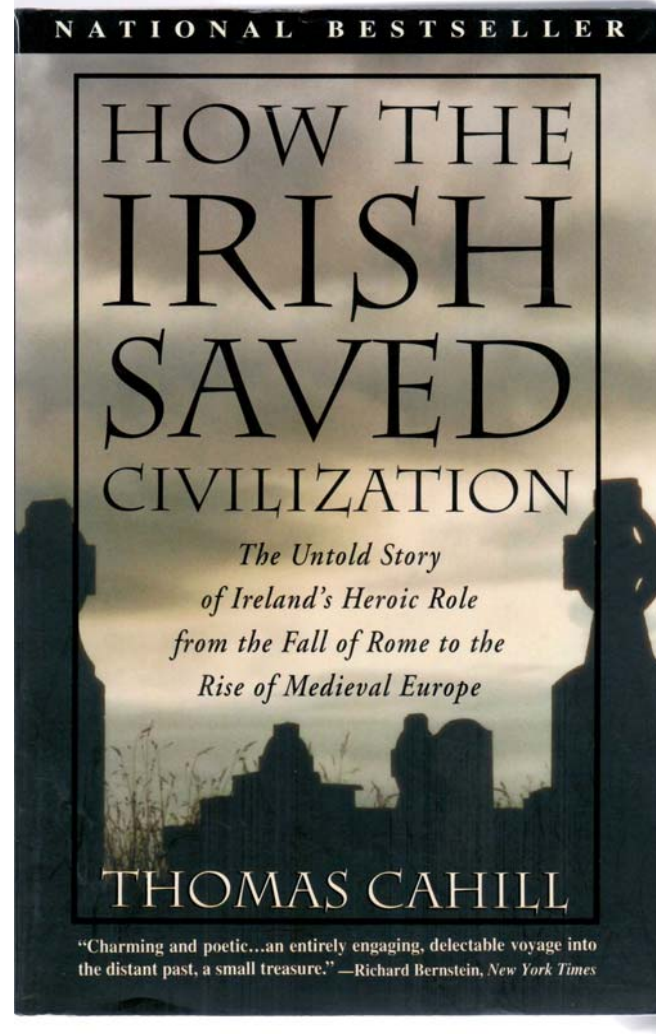
*"Different cultures make
different human beings"*
(Davis 2003).

People, environment and
biota shape each other
(Mann 2005).



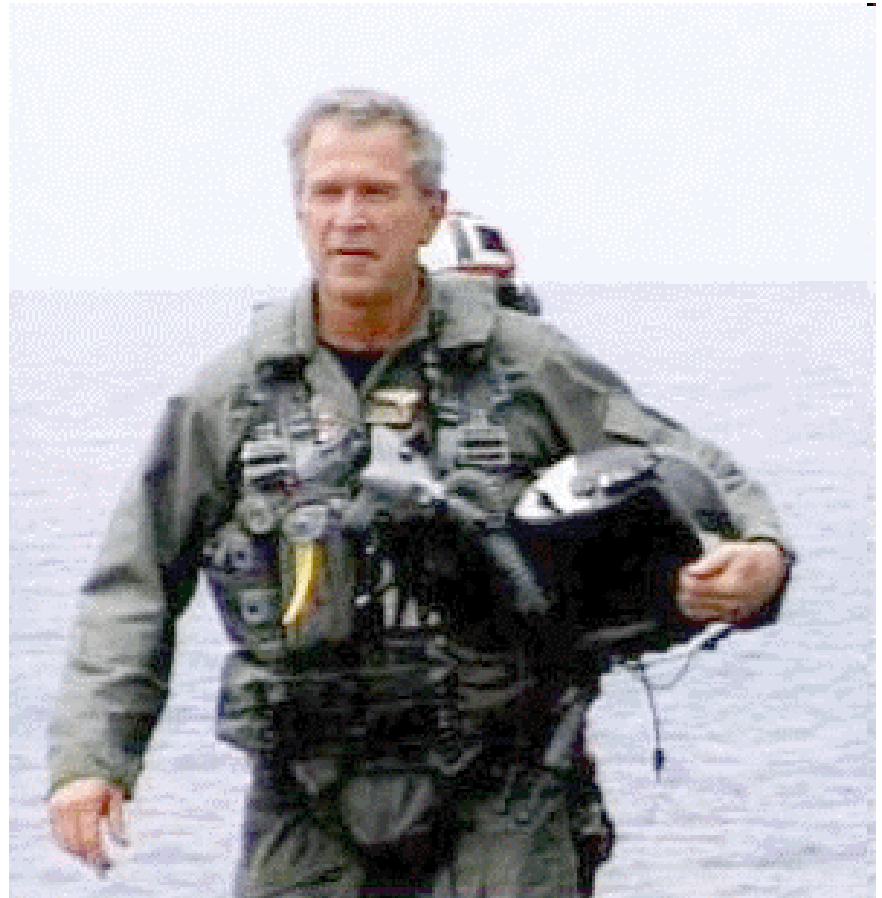
Interaction between people, territory, biota and 'surprise' (Hollings 1996).

It's foolhardy to question the Irish claim to civilization...



Whatever *that* means...

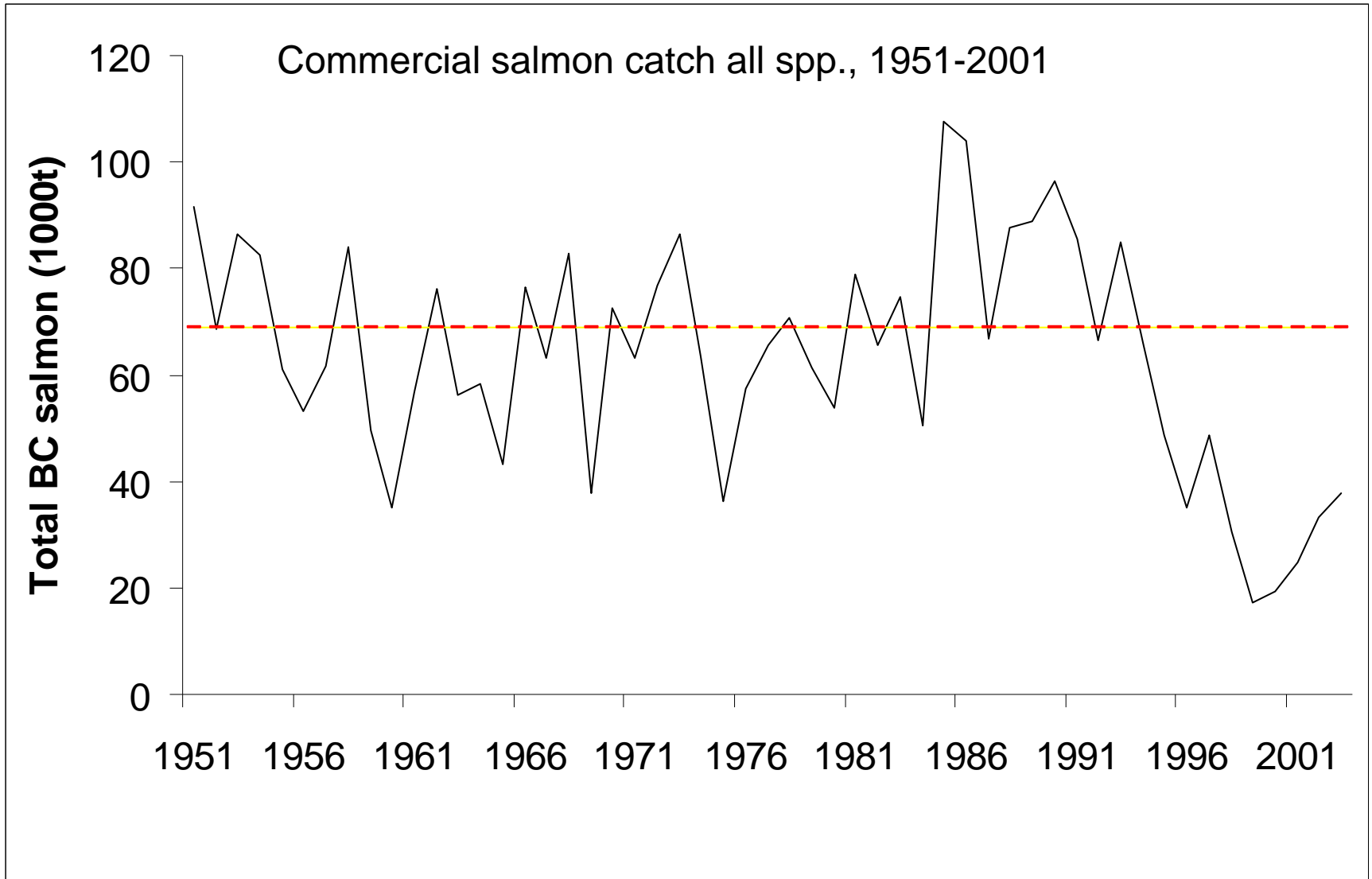
- “They have declared war on the civilized world -- and war is what they got.”



The last 'wild' salmon

- Fishing technology that could wipe out salmon runs 'many times over' at least 4,000 years old;
- The last 'wild' salmon likely swam up some BC river well over 3,000 years ago;
- Aboriginal people transplanted eggs and manipulated run timing to compensate for natural variability;
- >> food security → complex and rich cultures;
- Abundance that stunned explorers an artefact of release of Aboriginal harvest pressure due to disease;
- Today's 'wild' salmon are the product of 250 years of commercial fishing;
- Wild fish are a myth that romanticizes even overfishing.

300,000 people = 69,000t of salmon

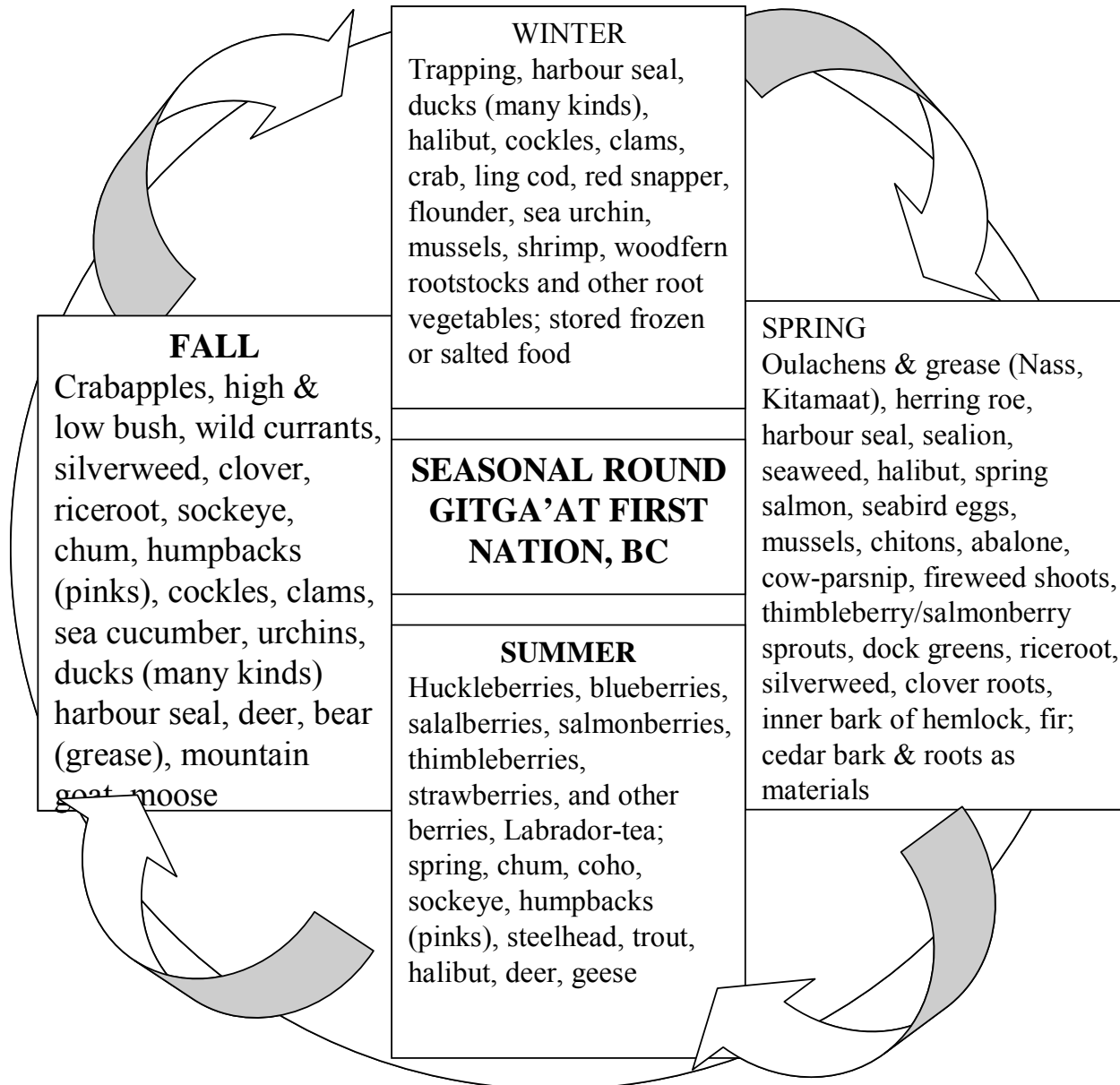


Not just salmon...

- ‘Clam gardens’ extended productive beach areas (Harper 1995);
- maximized the productivity of plant foods and materials;
- Many other marine and terrestrial spp.



Photo: John Harper

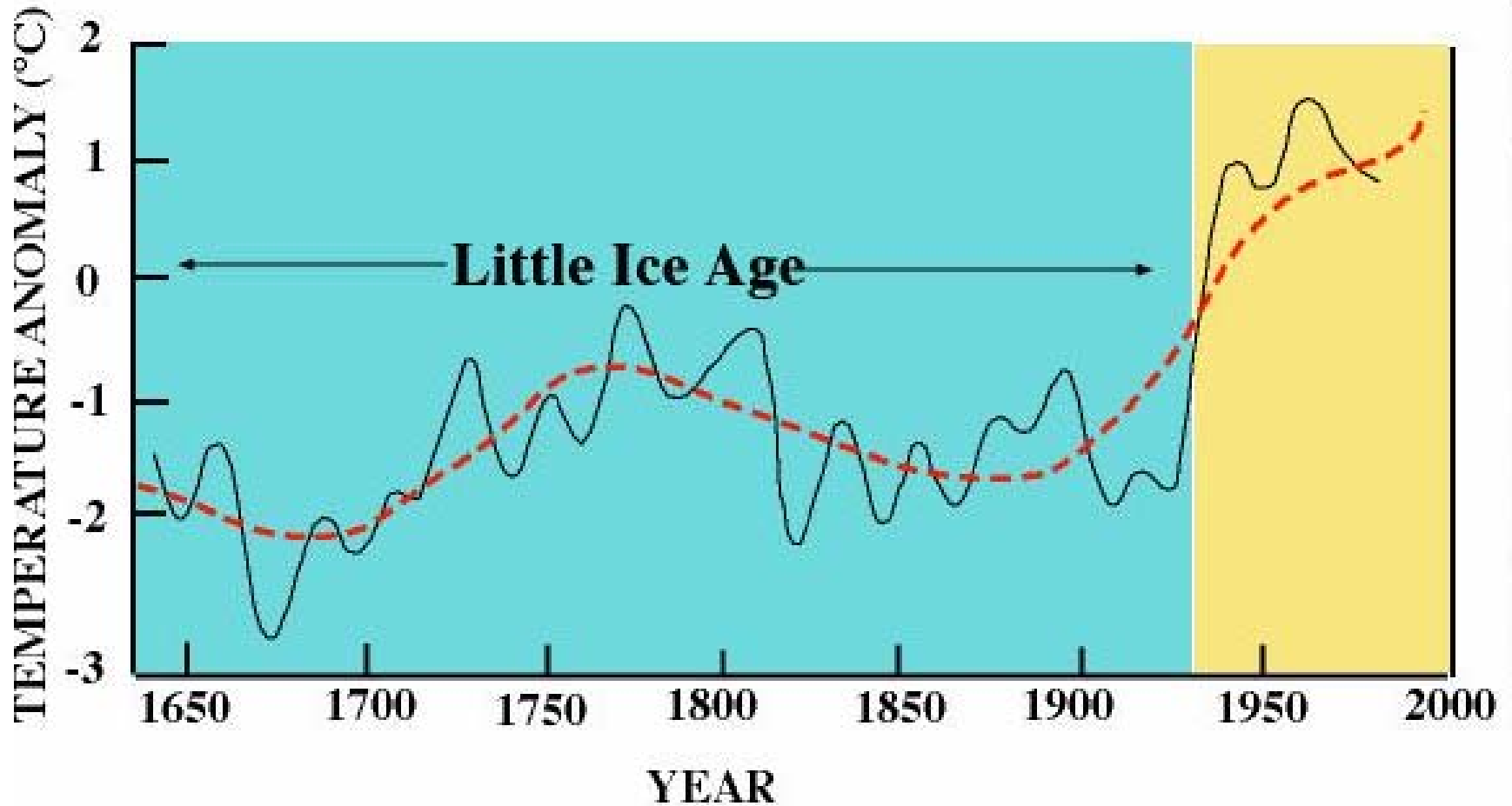


The myth of abundance and leisure

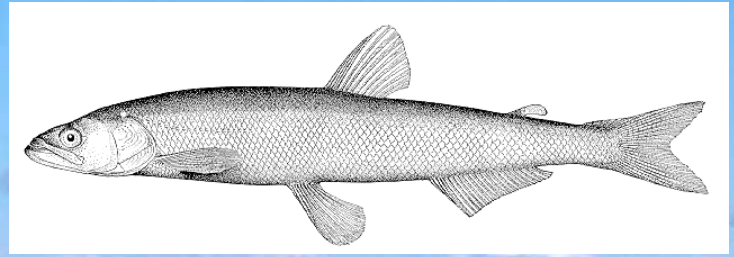


- No supermarkets. No central heat;
- Abundance is patchy (Bolster this meeting), and seasonal;
- Populations were very high;
- Many traditional foods are low calorie;
- Hard to survive winter on dried salmon and berries, particularly during the ‘Little Ice Age’.

Little Ice Age

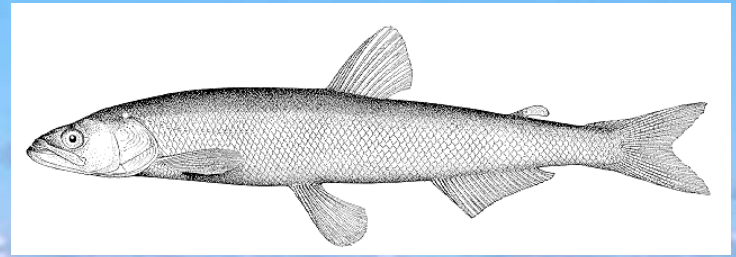


Eulachon



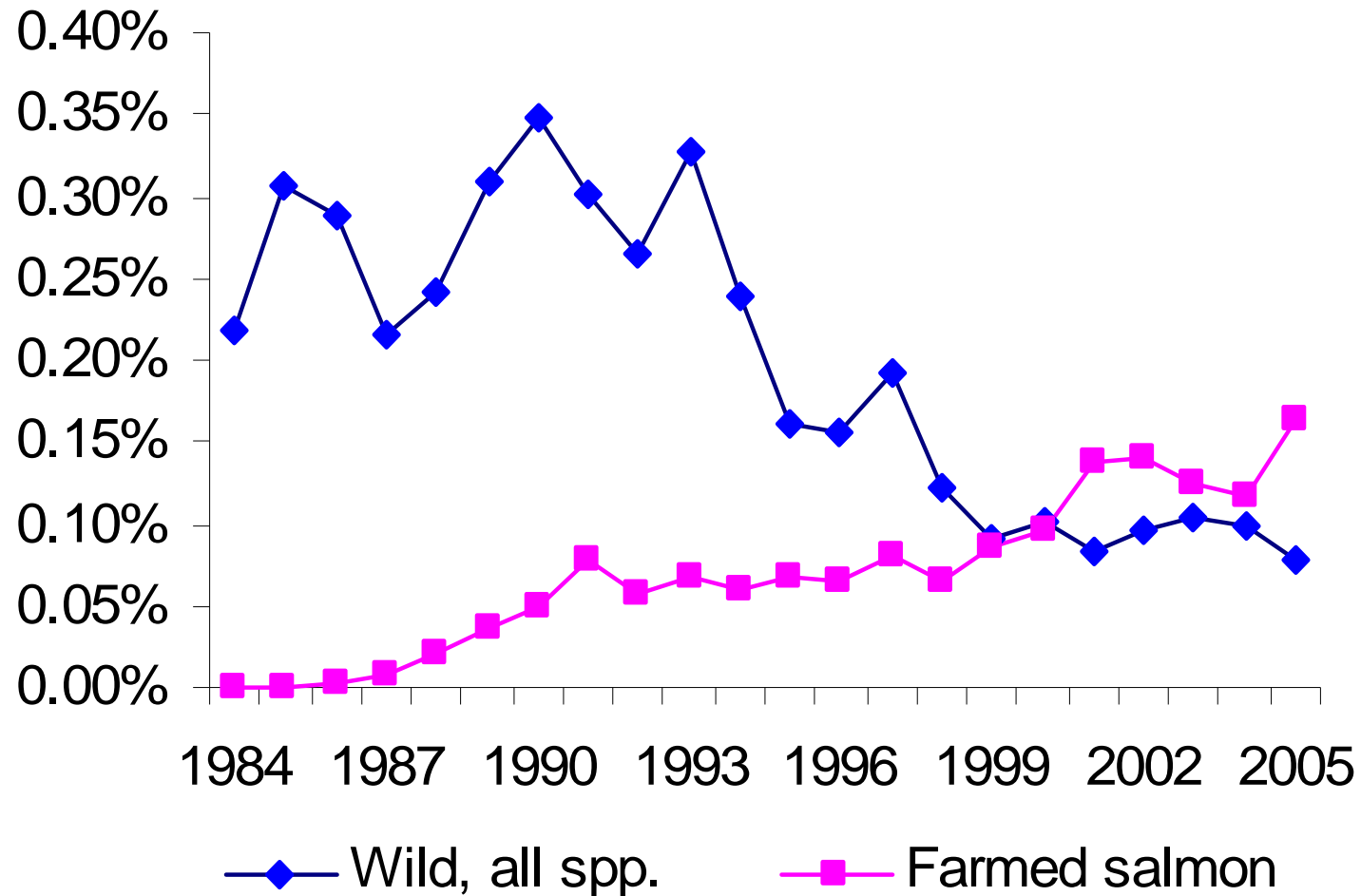
- 5th rank commercial fishery in 1912;
- Highest oil content of any pelagic fish;
- Oil or ‘grease’ traded over great distances;
- ‘Salvation’ or ‘preservation’ fish in several languages;
- Arrived in spring when other food sources low;
- Ecological and cultural keystone species vital to inter-generational transfer of knowledge;
- Declining throughout range;
- ‘Forgotten anadromous fish’ of the research community
- (Haggan *et al.* in press).

Eulachon



- Nuxalk Nation *Feast of Mourning and Shame* 2007;
- Why is it only Aboriginal people that get to use the language of love and grief at the loss of things they love?
- Our work—HMAP, *Back to the Future*, *Sea Around Us*, *The Sea Ahead*—is a protest;
- Who is listening?
- The UK fishery value \approx the mushroom industry;
- People in BC believe fisheries are important, but fisheries are $<$ 0.1% of GDP (BC 2007);
- Eulachon aren't on this 'cognitive map'.

‘Wild’ fisheries and farmed salmon as % of BC’s GDP



Source: BC Stats and Statistics Canada.

The fisheries minister is the sandlance in the Cabinet foodweb...

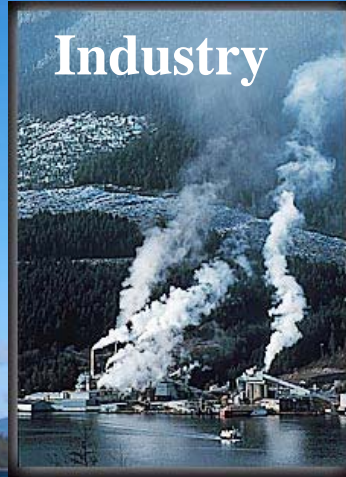
Waste disposal



Oil and Gas
\$110 bn



Industry



Gas hydrates;
Gravel mining;
CO₂



Pre-contact vs today

- Ecosystems sole source of wealth;
- Fish as spiritual beings *and* wealth;
- Wealth distributed locally;
- → food, economic and territorial security
- Sustainable for 8,000 years (Erlandson this mtg)
- Industry, agriculture, IT, stock market, auto industry, defense...
- Fish as commodity → economics of extinction (Clark 1973);
- Wealth flows off tribal lands;
- Marginalization, loss of culture, loss of T/LEK;
- Depletion, extinction, societal breakdown, loss of culture...

Marine populations *are* history (MPAH)

- But species, habitats and people shaped each other:
 - Salmon (Johnsen 2001; Haggan *et al.* 2006; Troster 2009);
 - Aleuts took 20,000 sea lion skins for boats for 1,000s of years (Maschner 2007);
 - Chumash likely depressed local sea otter abundance to allow red abalone to flourish (Erlandson this meeting);
- Species loss is at best a partial picture;
- The solution for ecology *must* be the solution for the poor (Boff 1997; Yunus 2006; Martinez 2006).

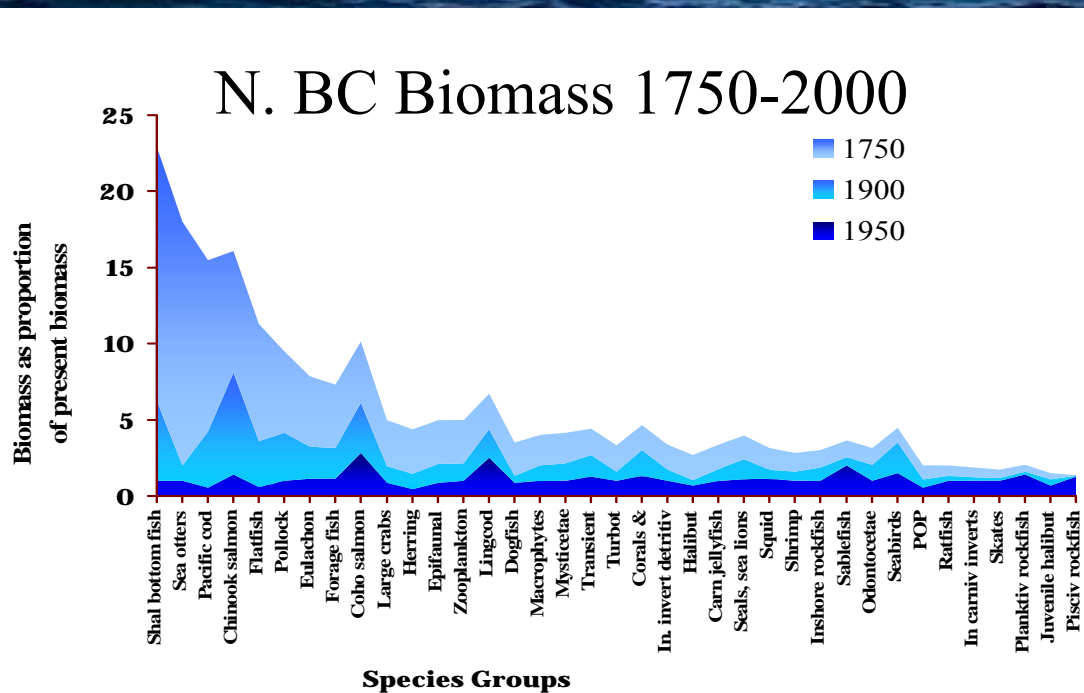
The Prophetic Imagination



- Prophets arise in times of grief, agony, oppression and a sense of hopelessness;
- Depleted marine ecosystems exacerbate poverty—nature as the new poor (McFague 2009);
- The *Prophetic Imagination* combines a radical critique of the present (HMAP, SAUP, BTF, etc.);
- *and* hope of renewal when there is no grounds for hope (Brueggemann 2001);
- What is the best we can do?

Ecosystem services?

- Suggest that creation exists solely for our benefit;
- Obsession with marginal change in present systems (e.g., MEA)—no room for baseline shift.



Ainsworth and Pitcher (this meeting)

TOTAL ECONOMIC VALUE

USE VALUE

NON-USE VALUE

Direct Use

Indirect Use

Consumptive

Non-Consumptive

Ecosystem services

Option
Quasi-option

Existence
Bequest

- Fixation on what/how to count misses the point that the whole is greater than the sum of its parts.

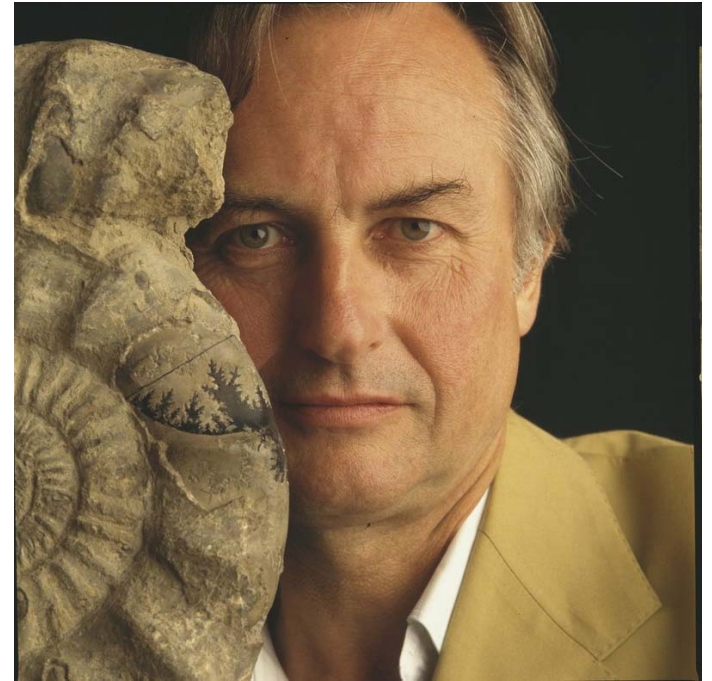
The spiritual value of nature

- Most eloquently stated by Aboriginal people;
- But is common to all major religions (Harvard Forum on Religion and Ecology);
- And to many who refute any formal religion;
- Some scientists hide behind Latin, e.g., *Biophilia*);
- But, even the poster child for extirpating religion from public life...

...in a *London Times* interview:

- “*you can write about what I call Einsteinian religion, which I subscribe to and so do many scientists as a sort of reverence for the Universe and life, which has nothing to do with anything supernatural.*”

Gledhill (2007)



Last words on Ecosystem services (I promise)

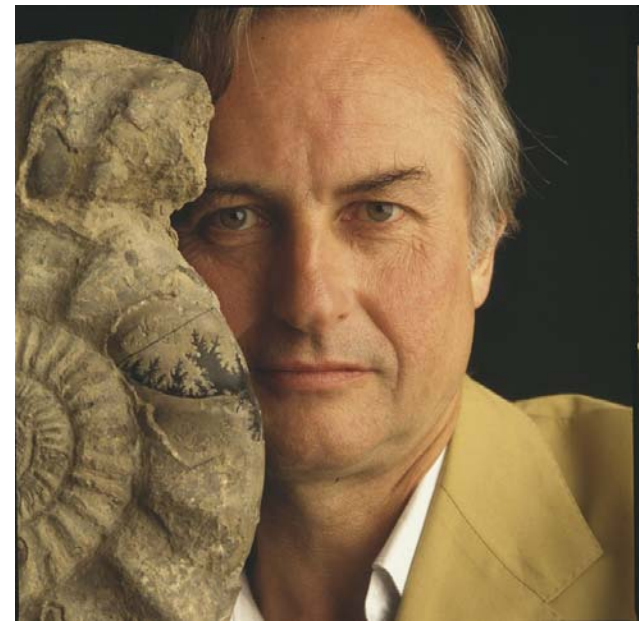
- “A serious underestimate of infinity” (Toman 1998; also McCauley 2006);
- Insufficient mental capacity to hold two ideas in tension—wealth and jobs *and* protection of species, cultures and livelihoods for moral, spiritual and aesthetic reasons (Sagoff 2007);
- Moral, aesthetic, spiritual are not ‘individual preferences (Sen 1977, Polanyi 1944);
- Best characterized by “*unwillingness to pay*”;
- An abject failure of the Prophetic Imagination.

The Sea Ahead

- The sacred matters to all of us;
- It will not do to wait for Aboriginal people to put the spiritual value of nature on the table;
- Scientists of all stripes need to repossess the language of grief, oppression, loss and, above all, that we do what we do because these are things we love and will miss desperately if they cease to be.

OK, that's a big ask

- But it would help to expand our multi/ inter/ trans/ para disciplinary projects to include Aboriginal spiritual leaders, artists, poets, painters and lots more of the people who are at the sharp end of depletion;
- (Psst: That's not a flaming sword it's a fossil).



What can we do?

- Study the rules and practices that made indigenous and artisanal fisheries sustainable for 1,000s of years despite powerful technology and high populations;
- Give *serious* consideration (Andy this means you) to diverting some of the \$US 60 billion fishing subsidies to industrial fleets which make nonsense of 2015 food security targets;
- Don't fire the publicists, but for God's sake, engage some storytellers!

A last word on eulachon



Consider now the eulachon,
Once plentiful, now almost gone.
So, whatever your ethnicity,
Beware of oncorhynchocentricity!

Finally, a word from our sponsors...

'Erring on the side of caution

Thank You